

EXHIBIT 3

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

ASETEK DANMARK A/S,)
)
Plaintiff and)
Counter-Defendant,)
)
vs.) Case No. 3:19-cv-00410-EMC
)
COOLIT SYSTEMS, INC.,)
)
Defendant and)
Counter-Claimant.)
)
COOLIT SYSTEMS USA INC.,)
COOLIT SYSTEMS ASIA PACIFIC)
LIMITED, COOLIT SYSTEMS)
(SHENZHEN) CO., LTD.,)
)
Defendants,)
)
COSAIR GAMING INC., and)
CORSAIR MEMORY INC.,)
)
Defendants.)
)

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY
DEPOSITION OF DAVID TUCKERMAN, Ph.D.
MONDAY, DECEMBER 22, 2021

Reported Remotely and Stenographically by:
JANIS JENNINGS, CSR No. 3942, CLR, CCRR
Job No. 4997336

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7 REMOTE DEPOSITION OF DAVID TUCKERMAN, Ph.D., located
8 in Lake Stevens, Washington, taken on behalf of the
9 Defendants and Counter-Claimants CoolIT entities and
10 Corsair entities, beginning at 9:10 a.m., on Wednesday,
11 December 22, 2021, sworn remotely by Janis Jennings,
12 Certified Shorthand Reporter No. 3942, CLR, CCRR,
13 located in the City of Walnut Creek, County of
14 Contra Costa, State of California.
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24
25

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I N D E X

WITNESS

PAGE

DAVID TUCKERMAN, Ph.D.

EXAMINATION BY MR. KNIGHT

9

QUESTIONS NOT ANSWERED

PAGE

LINE

53

24

232

20

E X H I B I T S

EXHIBIT		PAGE
Exhibit 276	Exhibit A Materials Considered in Preparation of Non-Infringement Expert Report	11
Exhibit 277	Corrected Supplemental Declaration of Donald E. Tilton IPR2020-00825	16
Exhibit 278	Excerpt page from Tuckerman Rebuttal Expert Report w/redlines	26
Exhibit 279	Photographs of gaskets	103
Exhibit 279-A	Photographs of gaskets Gen 4, Gen 5, Gen 6, Gen 7	129
Exhibit 280	Exhibit A to Himanshu Pokharna Report Re Infringement	161
Exhibit 281	United States Patent Application 2006/0096738; ASE-CLT00044566 - 44574	189

PREVIOUSLY MARKED EXHIBITS

EXHIBIT		PAGE
Exhibit 259	Expert Report of Dr. David B. Tuckerman Regarding Invalidity of U.S. Patent Nos. 8,746,330; 9,603,284; and 10,274,266	115
Exhibit 259-A	Exhibit A; Invalidity Claim Chart for U.S. Patent 8,746,330	144
Exhibit 259-B	Exhibit B; Invalidity Claim Chart for U.S. Patent 9,603,284	144
Exhibit 259-C	Exhibit C; Invalidity Claim Chart for U.S. Patent 10,274,266	144
Exhibit 259-D	Exhibit D; Curriculum Vitae of David B. Tuckerman	144
Exhibit 259-E	Exhibit E; Materials Considered in Preparation of Invalidity Expert Report	144
Exhibit 259-F	Exhibit F; Infringement Contentions photographs	144
Exhibit 263	United States Patent No. 8,746,330	118
Exhibit 264	United States Patent No. 9,603,284	118
Exhibit 265	United States Patent No. 10,274,266	118

PREVIOUSLY MARKED EXHIBITS

EXHIBIT		PAGE
Exhibit 266	Rebuttal Expert Report of Dr. David Tuckerman Regarding Non-Infringement of U.S. Patent Nos. 8,746,330; 9,603,284; and 10,274,266	11
Exhibit 273	United States Patent No. 5,998,240; ASE-CLT00044523 - 44537	144

1 WEDNESDAY, DECEMBER 22, 2021; 9:10 A.M.

2
3 09:05

4 THE VIDEOGRAPHER: Good morning. We are 09:05
5 going on the record at 9:10 a.m. on December 22nd, 09:10
6 2021. This is media unit 1 of the video recorded 09:10
7 deposition of Dr. David Tuckerman taken by counsel 09:10
8 for defendant in the matter of Asetek Danmark A/S 09:10
9 versus CoolIT Systems, Incorporated and all related 09:11
10 cross actions, filed in the United States District 09:11
11 Court for the Northern District of California. Case 09:11
12 number 3:19-cv-00410-EMC. 09:11

13 This deposition is being held by Veritext 09:11
14 Virtual via Zoom web conferencing. My name is Soseh 09:11
15 Kevorkian from the firm Veritext and I'm the 09:11
16 videographer. Our court reporter is Janis Jennings 09:11
17 also from the firm Veritext. 09:11

18 At this time, would counsel and all present 09:11
19 please identify themselves for the record. 09:11

20 MR. KNIGHT: I am Dustin -- oh, go ahead, 09:11
21 Arpita. 09:11

22 MS. BHATTACHARYYA: No, go ahead, Dustin. 09:11
23 Go ahead. 09:11

24 MR. KNIGHT: Thank you. Thank you. 09:11

25 You have Dustin Knight and my colleague 09:11

1 Reuben Chen with Cooley LLP on behalf of CoolIT and 09:11
2 Corsair. 09:11
3 MS. BHATTACHARYYA: Arpita Bhattacharyya 09:11
4 from Finnegan LLP on behalf of plaintiffs Asetek 09:12
5 Denmark A/S. 09:12
6 THE WITNESS: And I'm David Bazeley 09:12
7 Tuckerman. 09:12
8 THE VIDEOGRAPHER: Okay. Thank you. 09:12
9 Janis, whenever you are ready. 09:12
10
11 DAVID TUCKERMAN, Ph.D.,
12 the witness herein, was sworn and
13 testified as follows:
14 09:12
15 DEPOSITION REPORTER: Thank you. 09:12
16 Please begin, Counsel. 09:12
17
18 EXAMINATION 09:12
19 BY MR. KNIGHT: 09:12
20 Q. Good morning, Mr. Tuckerman. 09:12
21 A. Good morning. 09:12
22 Q. How are you doing today? 09:12
23 A. I am okay. Thank you. 09:12
24 Q. Great. I'm doing very well. Thank you for 09:12
25 asking. 09:12

1 Q. Great. 09:16

2 A. Yeah.

3 Q. Okay. Okay. Dr. Tuckerman, when did you 09:16

4 begin preparing your rebuttal report on 09:16

5 noninfringement? 09:16

6 A. Well, it -- I think it would have been 09:16

7 very -- well, it would have been after the report 09:16

8 came in, which -- I mean, it would have been after 09:16

9 seeing [audio interference] submission so 09:16

10 mid/early -- early December. 09:16

11 Q. Okay. And who did you speak with in 09:17

12 preparing your rebuttal report on noninfringement? 09:17

13 A. Oh, Counsel, Arpita. 09:17

14 Q. Was there anyone else? 09:17

15 A. I mean there was -- Rob McCauley gave me 09:17

16 some pointers on deposition protocol, but the 09:17

17 technical aspects of the report were all with 09:17

18 Arpita. 09:17

19 Q. Okay, great. And, Dr. Tuckerman, your 09:17

20 counsel would already tell you this, but you should 09:17

21 not divulge any confidential information in terms of 09:17

22 conversations that you've had with your attorneys. 09:17

23 Do you understand that? 09:17

24 A. Right. Okay. Yeah, I understand. 09:17

25 Q. Great. Great. 09:17

1 Dr. Tuckerman, have you ever spoken with 09:18
2 anyone at Asetek? 09:18
3 A. I have not spoken with anyone from Asetek. 09:18
4 Q. Okay. Okay. And do you speak Danish, 09:18
5 Dr. Tuckerman? 09:18
6 A. No, I do not. 09:18
7 Q. Okay. Do you read Danish? 09:18
8 A. I can't say that I do. 09:18
9 Q. Okay. Okay. Now, did you review any of 09:18
10 Asetek's documents in preparing your rebuttal 09:18
11 report? 09:18
12 A. There -- well, there was a -- I mean, there 09:18
13 was a deposition from Eriksen that I recall. The -- 09:18
14 there was -- I mean, there was -- can I see the 09:18
15 Materials Considered list? 09:19
16 Q. Yes. It should be in the folder, so feel 09:19
17 free to review that to refresh your recollection. 09:19
18 DEPOSITION REPORTER: Dr. Tuckerman, I think 09:19
19 we're getting your notifications in the audio, if 09:19
20 you're able to shut that off, please. 09:19
21 THE WITNESS: I don't -- really? 09:19
22 DEPOSITION REPORTER: Well, it was 09:19
23 somebody's. I thought it was yours, but I could be 09:19
24 wrong. 09:19
25 THE WITNESS: I'm not hearing anything. I

1 mean, what I could do is -- let me -- I mean, I had 09:19
2 my mail open so that is where I had to go to open up 09:19
3 this Zoom meeting. So I closed my email. 09:19
4 There's -- let's see -- I think -- I'm hoping you 09:20
5 won't hear any more. I mean, I didn't hear 09:20
6 anything, but anyway... 09:20
7 DEPOSITION REPORTER: Thank you. 09:20
8 THE WITNESS: I don't know if it was me. 09:20
9 Okay. So you asked about -- what was your 09:20
10 question again? 09:20
11 BY MR. KNIGHT: 09:20
12 Q. Sure. I just asked you if you reviewed any 09:20
13 Asetek documents in preparing your rebuttal 09:20
14 noninfringement report. 09:20
15 A. I don't see anything here other than the 09:20
16 deposition transcript of Andre Eriksen taken on 09:21
17 August 24th and 25th. So that's it. 09:21
18 Q. Okay. And that Materials Considered list, 09:21
19 is that a complete list of the materials that you 09:21
20 reviewed in preparing your noninfringement report? 09:21
21 A. As far as I can recall, yes. 09:21
22 Q. Okay. Okay. Now, for the opinions in your 09:21
23 rebuttal report, did you write those opinions? 09:21
24 A. They were written in collaboration with 09:21
25 counsel. 09:21

1 Q. Okay. And is it fair to say that the 09:21
2 opinions in your noninfringement report are your own 09:21
3 though? 09:22
4 A. That's absolutely correct. 09:22
5 Q. Okay. And they're not someone else's 09:22
6 opinions; right? 09:22
7 A. That is correct. 09:22
8 Q. Okay. Who prepared the first draft of your 09:22
9 report? 09:22
10 A. The first draft was prepared by Arpita. 09:22
11 Q. Okay. Okay. Great. Okay. 09:22
12 So could you please turn to paragraphs 48 09:22
13 and 50 in your report. And I would just like you to 09:22
14 read those paragraphs for me. Let me know when you 09:22
15 are finished. 09:22
16 A. Yeah. By the way, I should mention there 09:22
17 was back and forth before, you know, the first draft 09:22
18 and lots of back and forth after the first draft, 09:22
19 you know. 09:22
20 Q. Great. Great. I wouldn't expect anything 09:22
21 less. 09:22
22 A. Yes. So repeat your last question, please. 09:22
23 Q. Yeah. Yeah. I just asked if you could turn 09:22
24 to paragraphs 48 and 50 in your report and read 09:22
25 those paragraphs for me, and just let me know when 09:23

1	you've finished reading them.	09:23
2	A. Okay. And by the way, since I expect we	09:23
3	will be referring to this further, I'm also	09:25
4	downloading onto the disk so that I --	09:25
5	Q. Great. Great.	09:25
6	A. Yeah. Yeah.	
7	Q. Let me know when you are ready.	09:25
8	A. Yeah. All right.	09:25
9	MR. KNIGHT: I would like to introduce to	09:25
10	the record what I am labeling as Exhibit 277.	09:26
11	(Exhibit 277 marked for identification.)	09:26
12	BY MR. KNIGHT:	09:26
13	Q. Let me know when you see it, Dr. Tuckerman.	09:26
14	A. Yes. It just appeared.	09:26
15	Q. Okay.	09:26
16	A. Okay.	09:26
17	Q. Great. Dr. Tuckerman, have you seen this	09:26
18	document before?	09:26
19	A. Let me look at the Materials Considered.	09:26
20	Q. Sure.	09:27
21	A. Okay. I don't see it on my -- wait a	09:29
22	minute. No, there it is. It's in Exhibit A.	09:29
23	It's -- it is the -- yeah, 2020-00825. Yes. Yes.	09:29
24	Q. Okay. Perhaps we should switch -- strike	09:29
25	that.	09:29

1 So are you saying that you have seen this 09:29
2 document before? 09:29
3 A. Oh, yes, indeed. Yeah. 09:29
4 Q. Okay. Okay. Can we switch to your 09:29
5 Materials Considered list. 09:29
6 A. Right. 09:29
7 Q. And for your Materials Considered list, can 09:29
8 you point me to where in that list it describes 09:29
9 Dr. Tilton's corrected supplemental declaration? 09:30
10 A. Well, it's part of -- I mean, this is part 09:30
11 of a PTAB case, and I certainly remember seeing this 09:31
12 document. I inferred that it is a component of the 09:31
13 PTAB's final written decision in IPR2020-00825, that 09:31
14 it would be a component of that decision. 09:31
15 If that's not correct, then let's -- that it 09:32
16 is a component of it, it doesn't change the fact 09:32
17 that I have seen the document. 09:32
18 Q. Okay. So I'll represent to you that 09:32
19 Dr. Tilton's corrected supplemental declaration is 09:32
20 not a component of the PTAB's final written 09:32
21 decision. So to confirm -- 09:32
22 MS. BHATTACHARYYA: Objection. Okay. Go 09:32
23 ahead, Dustin. 09:32
24 MR. KNIGHT: Okay.
25 MS. BHATTACHARYYA: Finish your question. 09:32

1 MR. KNIGHT: Yep. 09:32

2 BY MR. KNIGHT: 09:32

3 Q. So to confirm, the Materials Considered list 09:32

4 only recites that you considered the PTAB's final 09:32

5 written decision in IPR2020-00825; correct? 09:32

6 MS. BHATTACHARYYA: Objection. Form. 09:32

7 Mischaracterizes prior testimony. Mischaracterizes 09:33

8 the document. 09:33

9 THE WITNESS: Just a moment, please. 09:33

10 BY MR. KNIGHT: 09:33

11 Q. Of course. Take your time. 09:33

12 A. Okay. So repeat your question, please. 09:34

13 Q. So my question is: In your Materials 09:34

14 Considered list, you only cite the final written 09:35

15 decision in IPR2020-00825; correct? 09:35

16 MS. BHATTACHARYYA: Same objections. Same 09:35

17 objections. 09:35

18 THE WITNESS: I cite that IPR202-000825 09:35

19 document in my report -- well, in Materials 09:35

20 Considered also, yes. 09:35

21 BY MR. KNIGHT: 09:35

22 Q. When you say "document," you mean the PTAB's 09:35

23 final written decision? 09:35

24 MS. BHATTACHARYYA: Objection. 09:35

25 Mischaracterizes prior testimony. 09:35

1 THE WITNESS: Well, what is -- okay. So 09:36
2 what I am saying is IPR2020-00825 is referred to in 09:36
3 this report and the Materials Considered list -- the 09:36
4 references in the Materials Considered list are -- 09:37
5 relate -- that include that IPR case are CoolIT's 09:37
6 patent owner response in IPR2020-00825 against 09:37
7 CoolIT's '266 patent. And the PTAB's final written 09:37
8 decision in IPR2020-00825 -- 09:37

9 BY MR. KNIGHT:

10 Q. Okay. 09:37

11 A. -- so, yeah. 09:37

12 Q. Okay. Do you know what an "IPR final 09:37
13 written decision" is? 09:37

14 MS. BHATTACHARYYA: Objection. Calls for 09:37
15 legal conclusions. 09:37

16 THE WITNESS: Well, I know that the PTAB is 09:37
17 like a court in the -- my understanding is that the 09:37
18 PTAB is like a court in -- associated with the 09:37
19 patent office, and they handle appeals. And a final 09:38
20 written decision would be like a court judgment, so 09:38
21 that's the level of my understanding. I'm not a, 09:38
22 you know, a patent attorney or, you know -- or -- so 09:38
23 that -- but that's my understanding. 09:38

24 BY MR. KNIGHT: 09:38

25 Q. I totally understand, Dr. Tuckerman. Hey, 09:38

1 I'm not a liquid cooling expert, so we each have our 09:38
2 lanes. 09:38

3 So the PTAB's final written decision in 09:38
4 IPR2020-00825, was that a decision that was issued 09:38
5 by the Patent Trial and Appeal Board or Dr. Tilton? 09:38

6 A. Well, a court decision would be issued by 09:38
7 the board. It wouldn't be issued by a party to 09:38
8 the... 09:38

9 Q. Okay. So just to clarify the record, 09:38
10 Dr. Tilton's corrected supplemental declaration is 09:39
11 not listed on your Materials Considered list; 09:39
12 correct? 09:39

13 MS. BHATTACHARYYA: Objection. 09:39
14 Mischaracterizes prior testimony. 09:39

15 THE WITNESS: Excuse me a minute. I need a 09:39
16 couple minutes to refresh my memory on the Tilton 09:40
17 document. I saw a great many documents since this 09:40
18 case began and some of them involved the Tilton, but 09:40
19 let me -- 09:40

20 BY MR. KNIGHT:

21 Q. I understand, Dr. Tuckerman, but that is not 09:40
22 responsive to my question. My question is very 09:40
23 simple. It's whether or not Dr. Tilton's corrected 09:40
24 supplemental declaration is listed on your Materials 09:40
25 Considered list. Could you answer that question for 09:40

1 me? 09:40

2 MS. BHATTACHARYYA: Objection. Asked and 09:40

3 answered. 09:40

4 THE WITNESS: To me, it's a -- well, the 09:40

5 question in my mind, and I think this is a -- 09:41

6 perhaps a legal technicality question, is whether 09:41

7 the -- whether this exhibit was incorporated in the 09:41

8 PTAB's final written decision. 09:41

9 I don't know whether it would be considered 09:41

10 as such or not. If it is not actually physically 09:41

11 part of that decision which is, you know, a 09:41

12 significant document, then I would say it's not on 09:41

13 the list. 09:41

14 BY MR. KNIGHT: 09:41

15 Q. Okay. 09:41

16 A. On the other hand, if it was integral to it, 09:41

17 then it would be on the list is the best answer I 09:41

18 can give you. 09:41

19 Q. Okay. So sitting here -- oh, I'm sorry. 09:41

20 Did you have anything else to say, Dr. Tuckerman? 09:41

21 A. No. 09:41

22 Q. Okay. Okay. So sitting here today, do you 09:41

23 know if you reviewed this document by Dr. Tilton or 09:42

24 another document by Dr. Tilton? 09:42

25 A. Well, I mean, like I say, I have seen many 09:42

1 documents by Dr. Tilton and I -- you know, this was 09:42
2 in a large pile of documents that was shipped to me 09:42
3 is -- you know, to the best of my recollection, it 09:42
4 was in there, among other Tilton testimony. 09:42

5 Q. Okay. Okay. 09:42

6 A. I'm, you know -- I mean, like I say, there 09:42
7 are lots of documents. But I'm quite sure some -- 09:42
8 you know, anything relevant to the case was in there 09:42
9 and this appears relevant so... 09:43

10 Q. Okay. Are you relying on this document if 09:43
11 it's not identified in your Materials Considered 09:43
12 list? 09:43

13 MS. BHATTACHARYYA: Objection. Form. 09:43

14 THE WITNESS: Well, that gets into -- please 09:43
15 allow me to refresh my memory on what's in the 09:43
16 document. 09:43

17 BY MR. KNIGHT: 09:43

18 Q. Go ahead. 09:43

19 A. Okay. So please repeat your question now 09:45
20 that I've had a chance to read it. 09:45

21 Q. Uh-huh. 09:45

22 A. And now that I've had a chance to refresh my 09:45
23 memory. 09:45

24 Q. Uh-huh. I asked you are you relying on this 09:45
25 document if it's not identified on your Materials 09:45

1 Considered list? 09:45

2 MS. BHATTACHARYYA: Objection. Form. 09:45

3 THE WITNESS: I am not relying on it per se. 09:45

4 I certainly agree with Tilton, but I would have made 09:45

5 an identical argument, and I do make that argument. 09:45

6 So I'm not relying on Dr. Tilton's opinion 09:45

7 in this matter, although he is an expert who I have 09:45

8 great respect for. So I would say I concur with 09:45

9 Tilton's position, but I'm not relying on it because 09:46

10 I would have made, and I do make, the exact same 09:46

11 physical arguments in the text. 09:46

12 BY MR. KNIGHT: 09:46

13 Q. And you understand that you need to properly 09:46

14 identify everything that you rely on in your 09:46

15 Materials Considered list; right? 09:46

16 MS. BHATTACHARYYA: Objection. Form. 09:46

17 THE WITNESS: Well, I am not claiming to 09:46

18 have relied on Tilton. I was just saying that I 09:46

19 agree with Tilton. I understood he had that 09:46

20 position, but my position is an independently taken 09:46

21 position, which -- and that is the position that's 09:46

22 in my report. 09:46

23 BY MR. KNIGHT: 09:46

24 Q. I understand that, Dr. Tilton [verbatim]. I 09:46

25 think my question was slightly different. 09:46

1 A. Tuckerman. 09:46

2 Q. Or -- sorry. Sorry. The Ts. 09:47

3 My question was: Do you understand that you 09:47

4 need to properly identify everything that you rely 09:47

5 on in your Materials Considered list; correct? 09:47

6 MS. BHATTACHARYYA: Objection. Form. 09:47

7 THE WITNESS: That -- well, that certainly 09:47

8 makes sense. 09:47

9 BY MR. KNIGHT: 09:47

10 Q. Okay. Okay. Turning back to Dr. Tilton's 09:47

11 corrected supplemental declaration. What's the date 09:47

12 that appears on the document? 09:47

13 A. That's dated May 10th, 2021. 09:47

14 Q. Okay. Now, Dr. Tuckerman, do paragraphs 2 09:47

15 and 4 of Dr. Tilton's supplemental declaration in 09:48

16 IPR2020-00825 use nearly the same words verbatim as 09:48

17 in your paragraph 48 and 50 of your noninfringement 09:48

18 report? 09:48

19 A. Allow me to compare. 09:48

20 Repeat your question, please, now. 09:50

21 Q. Certainly. So, Dr. Tuckerman, do paragraphs 09:50

22 2 and 4 of Dr. Tilton's supplemental declaration in 09:50

23 IPR2020-00825 use nearly the same words verbatim as 09:50

24 in, respectively, paragraphs 48 and 50 of your 09:50

25 noninfringement report? 09:50

1 MS. BHATTACHARYYA: Objection. 09:50
2 Mischaracterizes the documents. 09:50
3 THE WITNESS: There is -- there are sections 09:50
4 of -- there are, shall we say -- there is the use of 09:50
5 the same words or a few words put together in places 09:50
6 that -- let's put it this way, the -- Tilton's 09:50
7 opinion is very sound, and there's some things that 09:51
8 can't really be said more clearly or better than the 09:51
9 way he put it. 09:51
10 So I didn't see any reason that -- you know, 09:51
11 having seen the report previously, you understand, 09:51
12 and agreeing with that, I didn't see any reason to 09:51
13 make every word different. I didn't think that I 09:51
14 was, you know -- you know, being -- I didn't think 09:51
15 there was an issue of, you know, being accused of 09:51
16 plagiarism or something like that. It's just that 09:51
17 in technical fields, when something is correct and 09:51
18 true, people say things the same way. 09:51
19 And so I didn't see any problem -- I don't 09:52
20 see any problem that, in certain places, the same 09:52
21 words were used as Tilton because it's -- but 09:52
22 it's -- it is a position that is 100 percent 09:52
23 defensible on its own. And the fact that some of 09:52
24 the words are similar, I -- does not mean that I am 09:52
25 relying on his document. 09:52

1 set them side by side. 10:01

2 Q. You're welcome to print them out if you'd 10:01

3 like. 10:01

4 A. Okay. I -- that would be really helpful. 10:01

5 On this laptop, I can't print. Well, let me just... 10:02

6 MR. KNIGHT: I'd like to go off the record. 10:02

7 THE WITNESS: Okay. I'm really sorry. I 10:02

8 just want to be sure that this... 10:02

9 MR. KNIGHT: Dr. Tilton [verbatim], while 10:02

10 you print those out, I'd like to go off the record, 10:02

11 if that's all right. 10:02

12 THE WITNESS: Okay. I mean, if my counsel 10:02

13 will stipulate that this has been done correctly, 10:02

14 then I would go ahead. I'm not trying to be 10:02

15 obstructionist. 10:02

16 MR. KNIGHT: I totally understand. I 10:02

17 understand you have got -- you've got to check all 10:02

18 this stuff and I would do the same thing so... 10:02

19 THE WITNESS: Okay. Should I sign off or 10:02

20 what do I do? 10:02

21 MS. BHATTACHARYYA: We can go off the 10:02

22 record. 10:02

23 THE VIDEOGRAPHER: We're going off the 10:02

24 record at 10:02 a.m. 10:02

25 (Off the record.) 10:03

1 THE VIDEOGRAPHER: We are on the record at 10:18
2 10:18 a.m. This is the beginning of media 2 in the 10:18
3 deposition of Dr. David Tuckerman. 10:18
4 BY MR. KNIGHT: 10:19
5 Q. Welcome back, Dr. Tuckerman. 10:19
6 A. Thank you. 10:19
7 Q. Rather than have you print out and compare 10:19
8 the paragraphs that we discussed earlier, I'll just 10:19
9 represent to you that the Exhibit 278 is a 10:19
10 comparison of paragraphs 2 and 4 from Dr. Tilton's 10:19
11 corrected supplemental declaration in IPR2020-00825 10:19
12 to paragraphs 48 and 50 in your noninfringement 10:19
13 report, and that it was generated using a computer 10:19
14 program. 10:19
15 Now, with that understanding in mind, 10:19
16 Dr. Tuckerman, did you ask Dr. Tilton for permission 10:19
17 to copy the words he used in paragraphs 2 and 4 of 10:19
18 his corrected supplemental declaration? 10:20
19 MS. BHATTACHARYYA: Objection. Form. 10:20
20 THE WITNESS: I did not think it was 10:20
21 necessary in -- that this was not an issue of, you 10:20
22 know, publication matters that -- I should say, by 10:20
23 the way, that my difficulties are I'm not -- I'm a 10:20
24 different generation from you folks. I'm not real 10:20
25 computer literate and about the most I can figure 10:20

1 out is how to get -- I borrowed this laptop so that 10:20
2 one -- the one I'm looking at is not connected to my 10:20
3 printer, and getting more than two things on there 10:20
4 at the same time is -- I just was having trouble 10:20
5 so... 10:20

6 But, anyway, you know, when something is 10:20
7 true and correct and technically correct, you know, 10:20
8 I don't feel the need to change around the words. 10:20
9 You know, if I was publishing a paper, you know, 10:21
10 then issues of permission might be relevant. But 10:21
11 when I'm just stating a truth -- and let me be very 10:21
12 clear, I'm not relying on Dr. Tilton's opinions. I 10:21
13 think Dr. Tilton is correct, but these are -- these 10:21
14 are exactly my own opinion on the subject because 10:21
15 they're manifestly and obviously true physical facts 10:21
16 so... 10:21

17 BY MR. KNIGHT: 10:21

18 Q. Okay. Okay. One last question on this, 10:21
19 then I think we should probably move on. 10:21

20 And to your point about being from a 10:21
21 different generation, I'm from a different 10:21
22 generation than -- than like my sister, for example. 10:21
23 I don't have social media, so I get it in a 10:21
24 different context for sure. 10:21

25 In your professional opinion, is it 10:21

1 acceptable to copy the words of another author 10:21
2 without citing to that author? 10:22
3 MS. BHATTACHARYYA: Objection. Calls for a 10:22
4 legal conclusion. Mischaracterizes the document. 10:22
5 Mischaracterizes prior testimony. 10:22
6 THE WITNESS: Yeah. Say the question again, 10:22
7 please. 10:22
8 BY MR. KNIGHT: 10:22
9 Q. Sure. Sure. In your professional opinion, 10:22
10 do you believe it is acceptable to copy the words of 10:22
11 another author without citing that author? 10:22
12 MS. BHATTACHARYYA: Same objection. 10:22
13 Mischaracterizes. Mischaracterizes the documents. 10:22
14 Mischaracterizes prior testimony. Calls for legal 10:22
15 conclusions. Objection. Form. 10:22
16 THE WITNESS: I would say it depends on 10:22
17 context. I... 10:22
18 BY MR. KNIGHT: 10:22
19 Q. Okay. Okay. Let's move on. 10:22
20 So I think we should turn to the body of 10:22
21 your report. So in your report, you opine that 10:23
22 Asetek could design around the CoolIT asserted 10:23
23 patents; is that right? 10:23
24 A. I do opine that, yes. 10:23
25 Q. Okay. Okay. Now, in paragraphs 75 to 84 of 10:23

1 your report, does that contain the entirety of your 10:23
2 opinions with respect to your proposed 10:23
3 design-arounds? 10:23
4 MS. BHATTACHARYYA: Objection. 10:23
5 Mischaracterizes the report. 10:23
6 THE WITNESS: Let me find the paragraphs. 10:23
7 Which paragraph, please? 10:23
8 BY MR. KNIGHT: 10:23
9 Q. Paragraphs 75 through 84. 10:23
10 A. Okay. And your question about these -- the 10:24
11 question about these is what again, please? 10:24
12 Q. Yeah. So do paragraphs 75 through 84 in 10:24
13 your report contain the entirety of your opinion 10:24
14 with respect to your proposed design-arounds? 10:24
15 MS. BHATTACHARYYA: Same objections. 10:24
16 THE WITNESS: I would say they represent an 10:24
17 opinion of mine. I would not say that they are the 10:24
18 only opinions that I might have, but they are the 10:24
19 opinions that I've chosen to, you know, put to paper 10:24
20 and submit to the court. 10:24
21 I would reserve the right, if it's legally 10:24
22 appropriate, to add additional arguments in that 10:25
23 direction should it be, you know, necessary and 10:25
24 appropriate. So I can't say that it's the entirety 10:25
25 of my opinions on the subject. 10:25

1 BY MR. KNIGHT: 10:25

2 Q. Okay. Now, could you describe for me the 10:25

3 alternatives that are available to Asetek? 10:25

4 A. Well, I mean, I think the report speaks for 10:25

5 itself. Do you want me to walk you through it? 10:25

6 Q. Yeah, that would be helpful. Just a summary 10:25

7 would be great. 10:25

8 A. Okay. So we are starting with paragraph 75. 10:25

9 "...every asserted independent claim 10:25

10 of the asserted CoolIT Patents recites 10:26

11 a split-flow arrangement in the 10:26

12 plurality of microchannels wherein, 10:26

13 cooling liquid enters each microchannel 10:26

14 at a position between the microchannel 10:26

15 ends." 10:26

16 And then it goes on to, you know, cite to 10:26

17 specific claims. 10:26

18 In all cases, it is talking about between 10:26

19 the first ends -- that the inlet is between the 10:26

20 first ends and second ends of the channels. It says 10:26

21 it slightly differently in different claims, but 10:26

22 that's the idea. 10:26

23 Q. Yeah. 10:26

24 A. And so we are talking about, clearly, a 10:26

25 single set of continuous microchannels and you are 10:26

1 feeding them in the middle. 10:26

2 So moving on to paragraph 76. By designing 10:26

3 the cold plates in such a way that cooling liquid 10:27

4 enters each microchannel at the first or the second 10:27

5 end of the microchannel and not between the ends, 10:27

6 Asetek has effectively designed around CoolIT's 10:27

7 claims. 10:27

8 And that is explained in some figures below 10:27

9 where the microchannel plate is actually really two 10:27

10 microchannel arrays with a space in between. So 10:27

11 each, you know, set is roughly half the length of 10:27

12 the original microchannels, and you're now feeding 10:27

13 from the first end or second end of those individual 10:27

14 microchannel arrays, you know. So to me, that 10:27

15 clearly gets -- you know, is outside of the scope of 10:27

16 the CoolIT claims. 10:27

17 And there's, you know, a picture of the 10:28

18 Gen 6 cold plate, for example, where it has that 10:28

19 space between the two microchannel arrays. 10:28

20 Yeah, go ahead. 10:28

21 Q. Yeah, just -- just one question on the 10:28

22 design-around that you just mentioned. 10:28

23 A. Uh-huh. 10:28

24 Q. Does the space in the middle have to be of a 10:28

25 certain width in order not to infringe? 10:28

Page 35

1 at the microchannel end adjacent to 10:30
2 the gap." [As read.] 10:30
3 Then I go on in paragraph 79 to actually 10:30
4 opine on some technical advantages to this approach 10:30
5 over injecting directly into continuous channels 10:30
6 where the -- that can lead to improved performance, 10:30
7 because I'm describing that there is a form of 10:30
8 impingement going on in the center in the gap when 10:30
9 this happens, and that can give you local advantages 10:31
10 in heat transfer. 10:31
11 I should say that the -- how much advantage 10:31
12 and whether one wants to use that advantage depends 10:31
13 on the heat map of the chip. So these are not 10:31
14 simple issues, and you asked a question about the 10:31
15 width of the groove. That is not a simple question. 10:31
16 It -- there will be typically an optimum choice for 10:31
17 engineering, and that's determined after extensive 10:31
18 numerical simulation procedures. 10:31
19 So it does -- it is context sensitive to 10:31
20 what kind of chip you're putting on there, what is 10:31
21 its heat map, whether you, you know, what -- how 10:31
22 much benefit you might get in -- in the center from 10:31
23 doing that. 10:32
24 But what I am asserting is that you can -- 10:32
25 with this redesign, you can generate comparable and, 10:32

1 in some cases, better performance with this kind of 10:32
2 structure. 10:32
3 I do quote Mr. Eriksen's words on this 10:32
4 subject from his deposition transcript. 10:32
5 Q. Uh-huh. 10:32
6 A. And there's just more pictures of the cold 10:32
7 plate. 10:32
8 Q. Do you propose any other alternatives in 10:32
9 your report? 10:32
10 A. Well, it goes on -- 10:32
11 MS. BHATTACHARYYA: Objection. It 10:33
12 mischaracterizes the report. 10:33
13 THE WITNESS: Yeah. Here, we're talking 10:33
14 just about the gap between the microchannels. 10:33
15 There's also issues with the gasket that it gets 10:33
16 into. Yeah, that relates more to a different claim 10:33
17 issue. 10:33
18 BY MR. KNIGHT: 10:33
19 Q. Uh-huh. 10:33
20 A. Yeah. So I'm just moving along. 10:33
21 What was the paragraph range you were asking 10:33
22 me about? 10:33
23 Q. It was 75 to 84. 10:33
24 A. Right. Okay. So I'm down -- now down to 10:33
25 80. Okay. So here we go. 10:33

1 "Additionally, Asetek has redesigned 10:33
2 the gaskets over the microchannels 10:33
3 in...the Gen 4, 5, 6, and 7 products, 10:33
4 which overcome the alleged 10:33
5 infringement of the asserted claims 10:33
6 of the '284 patent and Claim 15 of 10:33
7 the '266 patent. The two independent 10:33
8 claims...of the '284 recite that the 10:33
9 'outlet flow path' from a centrally- 10:34
10 located microchannel is larger than 10:34
11 the 'outlet flow paths' from the outer 10:34
12 microchannels. Similarly, Claim 15 10:34
13 of '266 patent recites that the 'outlet 10:34
14 opening from the centrally located 10:34
15 microchannel is" -- 10:34

16 DEPOSITION REPORTER: I'm sorry. Can you
17 start that again? Paragraph...

18 THE WITNESS: Yes, I'm sorry.

19 "Similarly, claim 15 of the '266
20 patent recites that 'the outlet
21 opening from the centrally located 10:34
22 microchannel is larger than the
23 outlet opening from at least one of 10:34
24 the larger microchannels.'" 10:34
25 I disagree that -- okay. So I disagree that 10:34

1 outlet opening and outlet flow path are the same, 10:34
2 but Dr. Pokharna's alleged infringement analyses for 10:34
3 the '284 patent claims and Claim 15 of the '266 10:35
4 patent are nevertheless the same. He relies on the 10:35
5 beveled chamfered corners at the ends of the outlet 10:35
6 header regions near the outer microchannels to argue 10:35
7 for both patents that the outlet openings/outlet
8 flow path from a centrally located microchannel is 10:35
9 larger than the outlet openings/outlet flow paths 10:35
10 from the outer microchannels. 10:35
11 I disagree with Dr. Pokharna's infringement 10:35
12 analyses for the reasons explained above. 10:35
13 Regardless, Dr. Pokharna's infringement case for the 10:35
14 '284 patent claims and Claim 15 of the '266 patent 10:35
15 falls apart if: One, the corners of the outlet 10:35
16 regions near the outer microchannels are straight, 10:35
17 not curved; and, two, the openings from the outlet 10:35
18 header regions are adjacent to centrally located 10:35
19 microchannels and not near the other microchannels. 10:36
20 So to put that all in plain language, the -- 10:36
21 you're relocating the outlet holes so that they're 10:36
22 not corner but they're central; and secondly, you're 10:36
23 squaring off the corners rather than leaving a 10:36
24 bevel. And I'll say from an engineering point of 10:36
25 view, you know, a performance point of view, there's 10:36

1 no substantial difference in performance when you do 10:36
2 this because the -- those outlet regions are large 10:36
3 volume header regions and you -- you know, where you 10:36
4 place the hole is not -- does not create a 10:36
5 significant pressure drop difference. 10:36

6 The whole idea of microchannel cooling is 10:37
7 that the pressure drops -- the major pressure drops 10:37
8 are in the microchannel array itself, not in the 10:37
9 headers. The whole function of a header is to be 10:37
10 pretty much a uniform pressure environment. And so 10:37
11 where you choose the port to go in and out along the 10:37
12 length of the header is not a significant 10:37
13 contribution or effect on performance. And so, you 10:37
14 know, relocating them to the center is fine, and 10:37
15 does the same thing as having a port in the corner. 10:37

16 And as far as the bevel, you know, that to 10:37
17 me is -- was an issue of sort of engineering 10:37
18 aesthetics. I would think the designer thought, you 10:37
19 know, gee, that just kind of looks nice or 10:37
20 something, but there is no reason to put that bevel 10:37
21 on there. That doesn't change anything. If 10:37
22 anything, you know, it creates even a little more 10:38
23 volume in your header. 10:38

24 So with these two relatively trivial 10:38
25 changes, you get an outcome that is the same and -- 10:38

1 complete and convincing answer, I would like the 12:12
2 ability to refer to a document that I have cited in 12:13
3 my own report. 12:13

4 BY MR. KNIGHT: 12:13

5 Q. So you're telling me, sitting here today, 12:13
6 that you cannot tell me what you mean by a 12:13
7 "meaningful competitor" without being able to 12:13
8 reference a separate exhibit? 12:13

9 MS. BHATTACHARYYA: Objection. 12:13
10 Mischaracterizes prior testimony. Mischaracterizes 12:13
11 Dr. Tuckerman's report. 12:13

12 THE WITNESS: I am saying no such thing. I 12:13
13 certainly -- well -- 12:13

14 BY MR. KNIGHT:

15 Q. If that's the case, Dr. Tuckerman, then what 12:13
16 do you mean when you say a "meaningful competitor" 12:13
17 in paragraph 84? 12:13

18 A. It was meaningful enough that CoolIT's own 12:13
19 internal documents had it in a competitive analysis, 12:13
20 and they wouldn't have done that if they didn't 12:13
21 consider them a meaningful competitor. 12:13

22 Q. And by "they," you mean -- 12:13

23 A. CoolIT -- CoolIT would have not included it 12:14
24 in a competitive analysis if they did not consider 12:14
25 that particular single-pass product to be a 12:14

1 meaningful competitor. Why would you bother if they 12:14
2 were not taking some -- a meaningful amount of your 12:14
3 market share? So that's just, you know, a business 12:14
4 common sense. 12:14

5 Q. So when you say the term "meaningful 12:14
6 competitor," are you talking about a meaningful 12:14
7 competitor to CoolIT? 12:14

8 A. Well -- 12:14

9 MS. BHATTACHARYYA: Objection. Document 12:14
10 speaks for itself. 12:14

11 THE WITNESS: -- what I say in the document 12:14
12 is a meaningful -- "a meaningful competitor to 12:14
13 Asetek and CoolIT/Corsair's desktop liquid cooling 12:14
14 products." I mean, it is all the same market, you 12:15
15 know. They're all -- Asetek, CoolIT/Corsair, they 12:15
16 are going after the same market. 12:15

17 And so a product that is a meaningful 12:15
18 competitor to CoolIT would also presumably be a 12:15
19 meaningful competitor to Asetek because it is taking 12:15
20 market share from, you know, both of them. 12:15

21 BY MR. KNIGHT: 12:15

22 Q. Okay. Now, did you do any testing on the 12:15
23 Cooler Master product? 12:15

24 A. No, I didn't do any performance testing on 12:15
25 them. 12:15

1 Q. Okay. Did you buy or inspect the Cooler 12:15
2 Master product? 12:15
3 A. Okay. Let's -- Cooler Master product... 12:15
4 Let's check Materials Considered. 12:15
5 No. It's not on the list, so it would not 12:16
6 be one that I've had my hands on. 12:16
7 Q. Okay. And you didn't ask Asetek about 12:16
8 whether the Cooler Master product competes with 12:16
9 Asetek's products, did you? 12:16
10 A. As I've said -- 12:16
11 MS. BHATTACHARYYA: Objection. 12:16
12 Mischaracterizes the report. 12:16
13 THE WITNESS: As I've said, I've never 12:16
14 spoken with Asetek, and so I don't listen to the 12:16
15 rest of any question that starts with, did I ask 12:16
16 Asetek something. 12:16
17 BY MR. KNIGHT: 12:16
18 Q. Okay. So do you know if Asetek considers 12:16
19 Cooler Master a competitor in all of its market 12:16
20 segments? 12:16
21 MS. BHATTACHARYYA: Objection. Calls for 12:16
22 speculation. 12:16
23 THE WITNESS: I wouldn't know what segments 12:16
24 they consider them a competitor in or not. That's 12:16
25 out -- outside of the bounds of what I was asked to 12:16

1 opine on. 12:16

2 BY MR. KNIGHT: 12:16

3 Q. Okay. Okay. Well, would it surprise you to 12:16

4 know that Asetek does not consider Cooler Master a 12:17

5 competitor in all of its market segments 12:17

6 historically? 12:17

7 MS. BHATTACHARYYA: Objection. Outside the 12:17

8 scope of the report. 12:17

9 THE WITNESS: Well, you said "in all of its 12:17

10 market segments," so I might infer from that that 12:17

11 you think that in some market segments they do, or 12:17

12 else you wouldn't have asked the question that way. 12:17

13 And I come back to the report. Why was it 12:17

14 in a confidential competitive analysis if they 12:17

15 didn't care about them at all? 12:17

16 BY MR. KNIGHT: 12:17

17 Q. And that report was CoolIT's report; is that 12:17

18 correct? 12:17

19 A. Well, it's the one I've asked you to pull up 12:17

20 and you haven't, you know -- which you haven't done 12:17

21 so, you know, we could discuss it more if you pull 12:17

22 it up. 12:17

23 Q. So you're not going to answer my question? 12:17

24 A. Please repeat the question. 12:18

25 MS. BHATTACHARYYA: Objection. Asked and 12:18

1 answered. 12:18

2 BY MR. KNIGHT: 12:18

3 Q. My question is whether the report that you 12:18

4 referred to in your prior answer was CoolIT's 12:18

5 report. 12:18

6 MS. BHATTACHARYYA: Objection. Asked and 12:18

7 answered. 12:18

8 THE WITNESS: Well, it clearly in my report 12:18

9 says: 12:18

10 "CoolIT's own documents show that 12:18

11 this is not correct. For example, 12:18

12 COOLIT00036274-88 (Exhibit 129 to 12:18

13 the Mostafavi deposition)." 12:18

14 So that is a CoolIT document. 12:18

15 BY MR. KNIGHT: 12:18

16 Q. Okay. Now, did you conduct any surveys 12:18

17 about the acceptability of the Cooler Master product 12:18

18 to Asetek's customers? 12:18

19 MS. BHATTACHARYYA: Objection. Outside the 12:18

20 scope of the report. 12:18

21 THE WITNESS: Independently, I did not 12:18

22 conduct such surveys and was not asked to and didn't 12:18

23 think it was relevant to a noninfringement report. 12:19

24 BY MR. KNIGHT: 12:19

25 Q. Okay. And did you do anything yourself to 12:19

1 determine whether the Cooler Master product is a 12:19
2 meaningful competitor to the Asetek and 12:19
3 CoolIT/Corsair desktop liquid cooling products? 12:19

4 MS. BHATTACHARYYA: Objection. 12:19
5 Mischaracterizes the report. Outside the scope of 12:19
6 the report. 12:19

7 THE WITNESS: I saw this internal CoolIT 12:19
8 document, which I have referenced, in which there 12:19
9 was about half a dozen products evaluated for their 12:19
10 thermal performance. This particular Cooler Master 12:19
11 product was among that small group. 12:19

12 And I, as a -- a person with some not 12:19
13 inconsiderable experience in high-tech business and 12:19
14 electronics and pack- -- in electronic packaging, 12:19
15 I -- you know, and an MBA, by the way, from 12:20
16 Stanford, in addition to my Ph.D., it seemed a very 12:20
17 reasonable conclusion, just based on that report, 12:20
18 that they were considered a meaningful competitor. 12:20
19 You know, to what extent meaningful? I don't know, 12:20
20 but I can assure you no one would have bothered to 12:20
21 put it in a report where there's only five or six 12:20
22 items looked at if they didn't consider it 12:20
23 meaningful. 12:20

24 BY MR. KNIGHT: 12:20

25 Q. Okay. Okay. Great. Just a few more 12:20

1 questions and I think it would be a good time to 12:20
2 break for lunch. All right. 12:20
3 All right. So let's go back to paragraph 80 12:20
4 of your report. And look at the images on page 43, 12:20
5 44, and 45. 12:21
6 A. Okay. 12:21
7 Q. Do you see those? 12:21
8 A. Yes. 12:21
9 Q. Great. Where did you get those drawings 12:21
10 from? 12:21
11 MS. BHATTACHARYYA: Again, Dr. Tuckerman, I 12:21
12 can -- I'll caution you about the Rule 26 12:21
13 protections. 12:21
14 THE WITNESS: They were supplied by counsel 12:21
15 and included in the first draft of the report. 12:21
16 BY MR. KNIGHT: 12:21
17 Q. Okay. And what format did you receive those 12:21
18 drawings in? 12:21
19 MS. BHATTACHARYYA: Again, same cautions as 12:21
20 before. And, Mr. Knight, do we have that 12:21
21 stipulation in place that if I let Dr. Tuckerman 12:21
22 answer questions about this communication, the 12:21
23 format of communication, that it does not waive any 12:21
24 of the protection -- does not any -- Rule 26 12:21
25 protections? 12:22

1 now, just so you're aware, is on the record, and so 13:42
2 there's no grounds for misinterpretation. We 13:43
3 totally understand what your reservations are. 13:43
4 So if you could just go ahead and annotate 13:43
5 what you consider to be the elongated groove and -- 13:43
6 with the understanding that your caveats that you 13:43
7 mentioned earlier apply, that would be great. 13:43
8 A. Okay. I don't seem to have control right 13:43
9 now. Oh, wait a minute. Sorry. 13:43
10 Q. All good? 13:43
11 A. Is there an undo or like a control -- 13:43
12 Q. I believe there is an undo. 13:43
13 A. Oh, yeah. Okay, good. That works at least. 13:43
14 Okay, so... 13:43
15 Q. So one point of clarification before we 13:44
16 continue to the annotations. I want to understand. 13:44
17 The hole that you're referring to, is that 13:44
18 two-dimensional? 13:44
19 A. It's an opening so, I mean, it -- fluid 13:44
20 flows through it. 13:44
21 Q. Okay. 13:44
22 A. So, I mean, so it has -- no, I mean, it 13:44
23 has -- it has a vertical dimension in this -- in 13:44
24 this view. 13:44
25 Q. Okay. Is it fair to assume that the plane 13:44

1 of the opening is two-dimensional? 13:44

2 MS. BHATTACHARYYA: Objection. Outside the 13:44

3 scope of the report. Vague. 13:44

4 THE WITNESS: Yeah. I don't know what it 13:45

5 means to say "the plane of the opening." I mean, 13:45

6 you can -- you know, you can take cross sections. 13:45

7 BY MR. KNIGHT: 13:45

8 Q. That's what I'm asking about, about 13:45

9 the elong- -- you mentioned that an opening has a 13:45

10 vertical component to it at the -- at the top of the 13:45

11 vertical component, if we look at that cross 13:45

12 section, is that a two-dimensional cross section, or 13:45

13 is that -- 13:45

14 MS. BHATTACHARYYA: Same objection. 13:45

15 THE WITNESS: Well, I would like to go to my 13:45

16 report and the language that I used. 13:45

17 BY MR. KNIGHT: 13:45

18 Q. You can do that, but it seems like this is a 13:45

19 question that you can answer. 13:45

20 A. Well, what I do say is that "the 13:46

21 opening/" -- paragraph 57: 13:46

22 "The opening/hole in the gasket, 13:46

23 depicted by the red boxes..., is the 13:46

24 actual inlet into the microchannels. 13:46

25 But the opening/hole in the gasket 13:46

1 is not" elongated -- "'elongate,' as 13:46
2 required by claims 1 and 15." 13:46
3 You know, and I should mention that, to my 13:46
4 mind, "elongate" means significantly longer than its 13:46
5 width. 13:46
6 Q. Okay. So maybe this will help -- oh, I'm 13:46
7 sorry, Dr. Tuckerman. Is there anything else you 13:46
8 wanted to say? 13:46
9 A. [No audible response.]
10 Q. I will take that as a no. All right. 13:47
11 What is the definition of "opening" that you 13:47
12 applied in your report? 13:47
13 MS. BHATTACHARYYA: Objection. Form. 13:47
14 THE WITNESS: Just a moment, please. I want 13:47
15 to make sure I am speaking correctly on these 13:47
16 issues. I know that patent language gets very 13:47
17 technical. 13:47
18 Can I have my invalidity report in there as 13:48
19 an exhibit? 13:48
20 BY MR. KNIGHT: 13:48
21 Q. Sure. I can provide it to you. For the 13:48
22 record, I am reintroducing what has previously been 13:49
23 designated as Exhibit 259, which is Dr. Tuckerman's 13:49
24 expert report on the invalidity of the asserted 13:49
25 CoolIT patents. 13:49

1	A.	Is it there yet?	13:49
2	Q.	I am introducing it now.	13:49
3	A.	Okay.	13:49
4	Q.	Okay. It should be there. Do you see it,	13:50
5		Dr. Tuckerman?	13:50
6	A.	Oh, yes. There it is. Okay. Wait a	13:50
7		minute. What exhibit was it? It's not showing up.	13:50
8	Q.	Exhibit 259.	13:50
9	A.	Oh, okay. I see it. It came up. I didn't	13:50
10		go to the bottom of the list. That's why. Okay.	13:50
11		Yeah. All right. Check something out here.	13:51
12		Okay. I am just checking. We are at	13:51
13		paragraph 34 of the report says:	13:51
14		"I further understand that the Court	13:51
15		has declined to construe the terms	13:51
16		'inlet,' 'inlet opening,' 'aperture,'	13:51
17		'outlet opening,' 'inlet/outlet flow	13:51
18		path'....," and some other things,	13:51
19		"found that these claim terms should	13:51
20		be given their plain and ordinary	13:51
21		meaning."	13:51
22		So ergo, your question was about the meaning	13:51
23		of "opening"?	13:51
24	Q.	Uh-huh. What is the definition that you	13:51
25		applied for opening in your noninfringement report?	13:51

1	A.	It has a plain and ordinary --	13:51
2		MS. BHATTACHARYYA: Objection. Vague.	13:51
3		THE WITNESS: It has a plain -- it has a	13:52
4		plain and ordinary meaning.	13:52
5		BY MR. KNIGHT:	13:52
6	Q.	Okay. And what does -- what is the plain	13:52
7		and ordinary meaning of "opening" to you?	13:52
8	A.	In the context of a fluidic system like	13:52
9		this, it means like a -- like a port, a hole,	13:52
10		something that the fluid is, you know, passing	13:52
11		through to get from one portion of your device to	13:52
12		another.	13:52
13		So it's a -- it's for fluid transport. It's	13:52
14		not for fluid distribution. Fluid distribution	13:52
15		would be -- into microchannels should be a function	13:52
16		of a header.	13:52
17	Q.	Okay. So is an opening two-dimensional or	13:52
18		three-dimensional?	13:52
19	A.	Well, it can -- honestly, it can be either.	13:52
20		You know, it depends on context.	13:53
21	Q.	Okay. In the context of the CoolIT patents,	13:53
22		is opening two-dimensional or three-dimensional?	13:53
23	A.	In the context of these patents, let me take	13:53
24		a look at the -- do we have the patents -- are the	13:53
25		patents actually in the exhibits here? I would like	13:53

1 them in the exhibits, please, since we are going to 13:53
2 talk about them. 13:53
3 Q. Sure. 13:53
4 A. Yeah. 13:53
5 Q. So for the record, I am reintroducing what 13:53
6 has been previously designated as Exhibit 263, which 13:53
7 is U.S. 8,746,330; Exhibit 264, which is U.S. 13:54
8 9,603,284; and Exhibit 265, which is U.S. 13:54
9 10,274,266. 13:54
10 They should be in the folder now, 13:54
11 Dr. Tuckerman. 13:54
12 A. Okay. I will refresh. Yeah. Okay. So I 13:54
13 mean, what patent are we talking about for the 13:54
14 purposes of this discussion right now? 13:55
15 Q. For the purposes of this discussion, let's 13:55
16 refer to the '330 patent. 13:55
17 A. All right. Let me open that. 13:55
18 And the other item I would like in the 13:55
19 exhibits available to me is Pokharna's report on 13:55
20 infringement. 13:55
21 MR. KNIGHT: Dr. Tuckerman, I don't think 13:55
22 it's appropriate for you to have to go through all 13:56
23 of the patents and Dr. Pokharna's report in order to 13:56
24 be able to tell me what you apply as a definition 13:56
25 for opening. 13:56

1 If we are going to do that, then I think 13:56
2 we're going to need more time to depose you because 13:56
3 you should be prepared for that already, having 13:56
4 already refreshed yourself on your report. 13:56

5 MS. BHATTACHARYYA: Mr. Knight, that is not 13:56
6 appropriate. If Dr. Tuckerman needs time to look at 13:56
7 his report and look at the patents to answer his 13:56
8 question, then he should have the time and he at 13:56
9 that time will go on the record. 13:56

10 MR. KNIGHT: I disagree, Arpita, but I note 13:56
11 your objection. 13:56

12 THE WITNESS: Well, I do think it's 13:56
13 appropriate because what I'm addressing are 13:56
14 assertions by Dr. Pokharna, and I -- you know, where 13:56
15 possible, I would like to use interpretations that, 13:56
16 you know, CoolIT has already agreed upon because, as 13:56
17 I mentioned, you know, in the case of an opening, 13:57
18 even the question of whether it should be considered 13:57
19 three-dimensional or two-dimensional needs to be 13:57
20 construed in the context of a patent, because those 13:57
21 are not precise engineering terms. 13:57

22 You know, to say something has a plain and 13:57
23 ordinary meaning, doesn't mean it has a precise 13:57
24 meaning, you know; rather, the opposite sometimes. 13:57
25 So that's why I'm asking for it because I feel it's 13:57

1 most appropriate to be responding to -- where 13:57
2 possible, to constructions that Dr. Pokharna used. 13:57
3 BY MR. KNIGHT: 13:57
4 Q. Are you saying that the term "opening" 13:57
5 cannot be understood by persons of ordinary skill in 13:57
6 the art without the reference to the CoolIT patents? 13:57
7 MS. BHATTACHARYYA: Objection. 13:57
8 Mischaracterizes prior testimony. 13:57
9 THE WITNESS: What I'm saying is "opening" 13:58
10 is a sufficiently broad term that, in isolation, I 13:58
11 don't think you can say that. You have to look at 13:58
12 what the context of the invention is, where this 13:58
13 opening is referred to, because as I've already 13:58
14 said, whether it's two-dimensional or 13:58
15 three-dimensional is -- can be context sensitive in 13:58
16 the -- in ordinary meanings. It has both ordinary 13:58
17 meanings, in my view, so that's why I'm asking for 13:58
18 those documents. 13:58
19 BY MR. KNIGHT: 13:58
20 Q. Okay. So just so I understand, do you 13:58
21 understand what the plain and ordinary meaning is of 13:58
22 "opening"? 13:59
23 MS. BHATTACHARYYA: Objection. Calls for a 13:59
24 legal conclusion. 13:59
25 THE WITNESS: It's -- I know it when I see 13:59

1 it in context. As I said, it doesn't have, all by 13:59
2 itself, a -- a definition without context. There's 13:59
3 many words whose plain and ordinary meaning is a 13:59
4 function of context. 13:59

5 BY MR. KNIGHT: 13:59

6 Q. Okay. So looking at the context that is the 13:59
7 '330 specification, what is your understanding of 13:59
8 the plain and ordinary meaning of the term 13:59
9 "opening"? 13:59

10 A. Right. Well, let me open it up and take a 13:59
11 look at it, please. 13:59

12 Q. You have the '330 patent. 13:59

13 A. Right. I have the '330 patent. And I would 13:59
14 also like the Pokharna document, please. 13:59

15 Q. I will not provide the Pokharna document. 13:59
16 You have the '330 patent. You told me that it has 14:00
17 to be understood with context. The context for the 14:00
18 term "opening" in the claims would be the '330 14:00
19 patent. So please, Dr. Tuckerman, answer my 14:00
20 question. 14:00

21 MS. BHATTACHARYYA: Mr. Knight, that is -- 14:00
22 that is not proper. If he wants to refer to 14:00
23 Dr. Pokharna's report because he is rebutting 14:00
24 Dr. Pokharna's report. So his opinions are rebuttal 14:00
25 to Dr. Pokharna's opinion. So I do not understand 14:00

1 why you're refusing to show him Dr. Pokharna's 14:00
2 report. 14:00
3 MR. KNIGHT: Okay. Another question -- 14:00
4 MS. BHATTACHARYYA: He's not giving 14:00
5 independent -- 14:00
6 BY MR. KNIGHT: 14:00
7 Q. Another question then for you, 14:00
8 Dr. Tuckerman. In order to be able to establish the 14:00
9 plain and ordinary meaning of the term "opening" 14:00
10 within the context of the '330 patent, do you have 14:00
11 to rely on the infringement report of Dr. Pokharna? 14:00
12 MS. BHATTACHARYYA: Objection. Form. 14:00
13 Mischaracterizes prior testimony. Calls for legal 14:00
14 conclusions. 14:01
15 THE WITNESS: Well, I'll put it this way. 14:01
16 These patents with CoolIT are quite -- the claims 14:01
17 are quite intricately written and, you know, 14:01
18 frankly, compared with many patents I've seen that 14:01
19 are rather straightforward, have almost been, you 14:01
20 know, craftily created to have broad potential 14:01
21 interpretations. 14:01
22 And I think that, you know, CoolIT, you 14:01
23 know, needs to have their position of what it means, 14:02
24 and that's currently Dr. Pokharna's position, and I 14:02
25 think I would like to start from there. 14:02

1 The -- as I say, these are intricately 14:02
2 worded patents, and I don't like to work from memory 14:02
3 on these kind of things. 14:02

4 BY MR. KNIGHT: 14:02

5 Q. Okay. Let's -- that is just not responsive, 14:02
6 Dr. Tuckerman, so I think let's just restart it. If 14:02
7 you don't want to give me a definition of opening, 14:02
8 that's fine. 14:02

9 But with the understanding that what you're 14:02
10 annotating doesn't include the opening, can you draw 14:02
11 what you consider to be the elongated groove in the 14:02
12 Gen 4, Gen 5, Gen 6 and Gen 7 products? 14:02

13 A. Okay. I am drawing an elongated groove. I 14:02
14 did. 14:03

15 MS. BHATTACHARYYA: Dr. Tuckerman, are you 14:03
16 drawing it on Gen 5? 14:03

17 THE WITNESS: No. I'm trying to scroll. 14:03
18 It's like this -- to get out of -- how do I get into 14:03
19 scroll mode? I think I'm in annotation. I'm going 14:03
20 to do an undo. How do I -- what do I click to be 14:03
21 able to scroll rather than -- 14:03

22 BY MR. KNIGHT:

23 Q. I think there is a -- there's a scroll bar 14:03
24 all the way to the right, right on the outskirts. 14:03

25 A. Oh, okay. Yeah, people's images are 14:03

1 covering it. I will move them over. 14:03

2 Q. Yeah, there you go. 14:03

3 A. There I go. 14:03

4 Q. And then there is an inner scroll bar that 14:03

5 will allow you to scroll down on the exhibit. It's 14:03

6 to the right of the stamp that says "Exhibit 0279." 14:03

7 A. I'm sorry. Say that again. There's an -- 14:04

8 Q. Yeah. So if you go to the stamp 14:04

9 Exhibit 0279, to the right of that, slightly to the 14:04

10 right, is another scroll bar, and that will allow 14:04

11 you to scroll up and down the exhibit itself. 14:04

12 A. Oh, okay. I get you. All right. 14:04

13 Q. Uh-huh. 14:04

14 A. Okay.

15 Q. There you go. 14:04

16 A. Oh, okay. Well, what I'm going to do is 14:04

17 just put a notation. Can I type in text or 14:04

18 something? 14:04

19 Q. Yeah. There's text right there 14:04

20 (indicating), free text. 14:04

21 A. Okay. I guess what I am going to say is 14:04

22 "groove could be construed as extending over the" -- 14:05

23 I don't know what happened. This thing is all of a 14:05

24 sudden not letting me type. 14:06

25 MS. BHATTACHARYYA: Dr. Tuckerman, you can 14:06

1 came up in the deposition, and I can't recall 19:03
2 specific testimony about, you know, using the words 19:03
3 that you used. 19:03
4 I can -- you know, it was a -- it looked 19:03
5 like it certainly disclosed a split-flow so, you 19:03
6 know, if we want to talk about how it applies, we 19:03
7 should go to my claim chart. 19:03
8 BY MR. KNIGHT: 19:03
9 Q. Dr. Tuckerman, this is well beyond the scope 19:03
10 of the question and, in fact, in your answer, it 19:03
11 seems to me you're saying you do not recall. Is 19:04
12 that correct? 19:04
13 A. I don't recall specifically using exactly 19:04
14 the words that you said. 19:04
15 Q. Okay. 19:04
16 A. Maybe I did, maybe I didn't. 19:04
17 Q. Okay. Okay. Okay. 19:04
18 MS. BHATTACHARYYA: Can we take a break? I 19:04
19 need to reload real time. 19:04
20 MR. KNIGHT: Yes. 19:04
21 Miss court reporter, can we go off the 19:04
22 record so that we can look into real time. 19:04
23 THE WITNESS: Okay. 19:04
24 THE VIDEOGRAPHER: Off the record at 19:04
25 3:10 p.m. 19:04

1 (Off the record.) 19:04

2 THE VIDEOGRAPHER: We are on the record at 15:16

3 3:16 p.m. This is the beginning of media 7 in the 15:16

4 deposition of Dr. David Tuckerman. 15:16

5 BY MR. KNIGHT: 15:17

6 Q. Mr. Tuckerman, could you please go to 15:17

7 Figure 11 and 12 of Hamilton and, correspondingly, 15:17

8 in your invalidity report to Exhibit B, Chart 4, at 15:17

9 pages 3 to 6. Let me know when you're there. 15:17

10 A. Okay. 15:17

11 Q. Okay. Can you describe for me the fluid 15:17

12 flow from the housing inlet opening to the 15:17

13 microchannels in Hamilton? 15:17

14 A. Yeah. The -- the coolant comes in the 15:17

15 housing. It's -- that section is labeled -- let's 15:18

16 see, it comes in through 86 so in plane view. So 15:18

17 there's a port 86, and then it -- then there is a 15:18

18 plate 24 prime in Figure 12 that is an elongate 15:19

19 inlet opening. And then after that -- so the fluid 15:19

20 flows in through this port on the end, and then it 15:19

21 goes into the channel labeled "82." 15:19

22 I guess 82 in Figure 11 must be the same as 15:19

23 92 in Figure 12. Well, I should probably check -- 15:20

24 check the -- let me pull up the patent itself. 15:20

25 Hamilton patent, is that in the -- 15:20

1 Q. Yep, it should be. 15:20
2 A. -- in the exhibits?
3 Q. Exhibit 2 -- 0273. 15:20
4 A. 20273. 0273. Okay.
5 Q. Yep.
6 A. Okay. All right. [Talking to self.] I'm 15:20
7 opening up yet another window. Screwed up here... 15:21
8 okay. So I got that up. 15:22
9 Okay. Well, he's using -- because he's got 15:22
10 different figures, it appears to me he's using 15:22
11 different numbering, but it's quite clear that fluid 15:22
12 is going in the inlet port -- the circular inlet 15:22
13 port 86, and then, you know, it should be, you know, 15:22
14 the housing -- in the housing and housing 24 15:22
15 prime in the -- well, no, wait a minute. I'm sorry. 15:22
16 Q. Perhaps we can walk through it together. 15:22
17 A. Yeah. Yeah, sure. Okay. 15:22
18 Q. Yeah. So -- just so -- I will tell you my 15:22
19 understanding and you can tell me whether I'm right 15:22
20 or wrong. So now, does fluid flow from the housing 15:22
21 inlet port to the inlet port 86? 15:22
22 MS. BHATTACHARYYA: Objection. 15:23
23 Mischaracterizes the reference. 15:23
24 THE WITNESS: Well, I consider it clear from 15:23
25 the figures and the text that the inlet ports are 15:23

1 circular, and they would be part of 56 prime, you 15:23
2 know. 15:23
3 BY MR. KNIGHT: 15:23
4 Q. Uh-huh. Yep. Yeah, I was just asking if 15:23
5 the housing inlet port -- fluid flowed from the 15:23
6 housing inlet port to the inlet port 86. 15:23
7 A. Well, the inlet port 86 is -- I think we 15:23
8 should go to his text -- 15:23
9 Q. Okay. Sure. 15:24
10 A. -- before we can be specific here. 15:24
11 So -- okay, the die, column 6 of the patent, 15:24
12 the die 20 double prime sits on a ceramic frame 24 15:25
13 prime -- I just lost my copy. There we go again. 15:25
14 Okay. Die 20 double prime figure 10 sits 15:25
15 on a ceramic frame -- 15:25
16 DEPOSITION REPORTER: Dr. Tuckerman, is this 15:25
17 for the record?
18 THE WITNESS: Well, yes. Yeah.
19 DEPOSITION REPORTER: Can you please adjust
20 your camera and read a little slower. Thank you. 15:25
21 THE WITNESS: Oh, I'm sorry. Yes. Very 15:25
22 small print. Okay.
23 "The die 20 prime sits on a ceramic 15:25
24 frame 24 prime which now includes 15:26
25 three generally rectangular coolant

1 manifolds 80, 82 and 84 which are 15:26
2 spaced apart as shown in Figure 11." 15:26
3 [Talking to self] Okay. Okay. 15:26
4 So -- ah, yeah. Right. Okay. I'm 15:26
5 remembering now. The die in Hamilton, I believe, 15:26
6 was integrated -- yeah, yeah, yeah, okay. Sure. So 15:26
7 it's a microchannel heat sink. It just happens that 15:26
8 the -- it's -- actually, the die itself is the 15:26
9 substrate for the microchannels. 15:26
10 And so the -- over that is the plate that 15:26
11 has the slots, and over -- over the slots is 56 15:27
12 prime, which would be your housing, and the -- 15:27
13 there's a circular hole coming out. 15:27
14 So is that clear enough? You're going in -- 15:27
15 BY MR. KNIGHT:
16 Q. If you could summarize for me what the fluid 15:27
17 flow is, I think that would be helpful for the 15:27
18 record. 15:27
19 A. Okay. It is... Yeah. 15:27
20 So the -- so what we're -- yeah, so "the 15:28
21 bottom" -- in the claim chart: 15:28
22 "The bottom plain/face of manifold 15:28
23 82," which is the plate, "defines an 15:28
24 elongate inlet opening in fluidic 15:28
25 communication with each of the 15:28

1 microchannels 68 prime. The elongate 15:28
2 inlet opening extends transversely in 15:28
3 relation to the length of each of the 15:29
4 microchannels. Moreover, the elongate 15:29
5 inlet opening is positioned midway
6 along the length of the microchannels." 15:29
7 Yeah. [As read.] 15:29
8 Q. Mr. Tuckerman, are you reading directly from 15:29
9 your report right now? 15:29
10 A. Yeah. From my claim chart, sure. 15:29
11 Q. Okay. Okay. So can you tell me the fluid 15:29
12 flow path from the housing's inlet opening to the 15:29
13 microchannels? 15:29
14 MS. BHATTACHARYYA: Objection. Vague. 15:29
15 BY MR. KNIGHT: 15:29
16 Q. Are you unable to do that sitting here 15:29
17 today, Dr. Tuckerman? 15:29
18 A. Can you give me a minute, please? 15:29
19 Q. I have given you many minutes, 15:29
20 Dr. Tuckerman. 15:29
21 MS. BHATTACHARYYA: And while Dr. Tuckerman 15:30
22 is reviewing his report, Mr. Knight, are you going 15:30
23 to ask a question about the noninfringement report, 15:30
24 or do you plan to continue asking questions about 15:30
25 the invalidity report, which was the subject of the 15:30

1 deposition two days ago? 15:30

2 MR. KNIGHT: I understand -- I understand 15:30

3 that, Arpita. You have to lay a certain foundation 15:30

4 in order to be able to talk about the infringement 15:30

5 report, and Dr. Tuckerman thus far has taken an 15:30

6 extended period of time to answer each question. So 15:30

7 we will get there. I cannot tell you how long it 15:30

8 will take though. 15:30

9 MS. BHATTACHARYYA: Okay. I'm just -- I'm 15:30

10 just curious because, you know, you're asking 15:30

11 questions about a report that was the subject of a 15:30

12 deposition two days ago, so he hasn't studied this 15:30

13 report for the deposition today. So it's 15:31

14 understandable that he needs some time to reacquaint 15:31

15 himself with his report which was the subject of his 15:31

16 deposition two days ago and the prior art references 15:31

17 and everything. 15:31

18 So if he needs some time, he'll need some 15:31

19 time, but that's why I want to make sure that -- 15:31

20 MR. KNIGHT: Yep. Nope. 15:31

21 MS. BHATTACHARYYA: Is this a foundational

22 question?

23 MR. KNIGHT: Your concern is well taken, 15:31

24 Arpita, and we will get there. 15:31

25 THE WITNESS: Okay. So please go ahead with 15:31

1 BY MR. KNIGHT: 15:58

2 Q. No, I understand that. My question is just 15:58

3 whether that cross-sectional -- if you take a cross 15:58

4 section, and there's that rectangular, is that 15:58

5 present in each of the accused Asetek Gen devices? 15:58

6 MS. BHATTACHARYYA: Same objection. Asked 15:58

7 and answered. 15:58

8 THE WITNESS: You will -- you will have a -- 15:58

9 if you take a cross section of that region in the 15:58

10 plane of the -- you know, in a plane parallel to the 15:58

11 microchannels -- 15:58

12 BY MR. KNIGHT:

13 Q. Uh-huh.

14 A. -- you will have a rectangle. 15:58

15 Q. Okay. Okay. And does fluid flow through 15:58

16 that rectangle? 15:58

17 MS. BHATTACHARYYA: Objection. 15:58

18 Mischaracterizes Dr. Pokharna's report. Outside the 15:58

19 scope of Dr. Tuckerman's report. Also, objection 15:59

20 vague. 15:59

21 THE WITNESS: Well, that's -- the fluid 15:59

22 accesses the microchannels, and if you take a 15:59

23 cross-sectional cut in the right place, you know, so 15:59

24 fluid would be flowing, you know, initially 16:00

25 perpendicular to it. 16:00

1 BY MR. KNIGHT: 16:00

2 Q. Okay. Okay. Okay. So, Dr. Tuckerman, why 16:00

3 is the two-dimensional rectangle beneath inlet 16:00

4 manifold 82 in Hamilton an elongated inlet opening, 16:00

5 but the two-dimensional rectangle beneath what 16:00

6 Dr. Pokharna labels the "inlet header" not an 16:00

7 elongated inlet opening? 16:00

8 MS. BHATTACHARYYA: Objection. 16:00

9 Mischaracterizes Dr. Pokharna's report. Outside the 16:00

10 scope of Dr. Tuckerman's report. 16:00

11 THE WITNESS: Okay. Repeat the question, 16:00

12 please. 16:00

13 BY MR. KNIGHT: 16:00

14 Q. Uh-huh. Why is the two-dimensional 16:00

15 rectangle beneath inlet manifold 82 in Hamilton an 16:00

16 elongated inlet opening, but the two-dimensional 16:00

17 rectangle beneath what Dr. Pokharna labels the 16:01

18 "inlet header" not an elongated inlet opening? 16:01

19 MS. BHATTACHARYYA: Same objections as 16:01

20 before. 16:01

21 THE WITNESS: Well, for one thing, if you -- 16:01

22 you have the issue of -- let's see. Let me look at 16:01

23 the whole claim. I want to go to my invalidity 16:01

24 report, just... Remind me what my invalidity report 16:02

25 exhibit number is. 16:02

1 BY MR. KNIGHT: 16:02

2 Q. Sure. I will pull it up. There are a lot 16:02

3 of exhibits. 16:02

4 A. There are. 16:02

5 Q. It is Exhibit 259. 16:03

6 A. Okay. And is there a particular patent that 16:03

7 is at issue here in your question? 16:03

8 Q. Yes. So Hamilton -- the Hamilton ground 16:03

9 that you discussed in your invalidity report relates 16:03

10 to the '284 patent. 16:03

11 A. '284 patent. All right. 16:03

12 Q. Uh-huh.

13 A. Wait. I'm sorry. I didn't mean invalidity 16:03

14 report. I meant the infringement report. I want to 16:03

15 go to the infringement report. What was that 16:03

16 exhibit? 16:03

17 Q. So just to be clear, do you want -- 16:03

18 A. Noninfringement. 16:03

19 Q. Your noninfringement. Okay. 16:03

20 A. Yes.

21 Q. Okay. I will give that to you now. Okay. 16:03

22 A. That's what exhibit?

23 Q. That is Exhibit 266. 16:03

24 A. Okay. [Talking to self.] I guess I didn't 16:03

25 download it yet, so let me download it now. 16:04

1 Q. Okay. 16:04

2 A. 266. I actually don't see it. 16:04

3 MS. BHATTACHARYYA: Dr. Tuckerman, that 16:04

4 should be at the very top of the list, I believe. 16:04

5 THE WITNESS: Oh, it says Exhibit 001 and it 16:04

6 was kind of cut off. Thank you. That's why I 16:04

7 didn't see it. 16:04

8 MR. KNIGHT: Thank you, Arpita. 16:04

9 THE WITNESS: Yeah. All right. Okay. 16:04

10 Maybe I already downloaded it. I'm not sure, but I 16:04

11 will download it again. Okay. There it goes. 16:04

12 Okay. It confused me to call it 001. All right. 16:04

13 Okay. Now I can open it. All right. And 16:05

14 you said the '284 patent; right? 16:05

15 BY MR. KNIGHT: 16:05

16 Q. Your mapping of Hamilton relates to the '284 16:05

17 patent. Yes? 16:05

18 A. Right. And -- all right. So in my report, 16:05

19 I start discussing it on page 24, it appears. 16:05

20 Okay. So paragraph 57, the opening/hole in 16:06

21 the gasket depicted by red boxes that are shown 16:06

22 in -- on page 27 is the actual inlet into the 16:06

23 microchannels. The opening hole in the gasket is 16:06

24 not elongate, so that little low-aspect ratio 16:06

25 rectangle, I would not consider elongate. It's not. 16:06

1 And it's even clearer on the Gen 5, it's not 16:06
2 elongate, nor does it open to or is in direct fluid 16:06
3 communication with each of the microchannels. 16:07

4 Rather, the opening hole is short and 16:07
5 extends over only a few of the fins microchannels, 16:07
6 so the opening hole by itself, without the groove in 16:07
7 the gasket, does not satisfy the limitations of the 16:07
8 independent claim so -- so that's the assertion, my 16:07
9 assertion. And so it would seem that it's not -- at 16:07
10 that point, it becomes not relevant, you know, 16:07
11 what -- 16:07

12 Q. Well, a couple things, Dr. Tuckerman. One, 16:07
13 that wasn't responsive to my question; and two, 16:07
14 regardless of whether you think it is relevant or 16:07
15 not, you still have an obligation to answer my 16:07
16 question. 16:07

17 A. Of course. 16:07

18 Q. So my question to you again is: Why is a 16:08
19 two-dimensional rectangle beneath inlet manifold 82 16:08
20 in Hamilton an elongated inlet opening, but the 16:08
21 two-dimensional rectangle beneath what Dr. Pokharna 16:08
22 labels as the "inlet header" not an elongated inlet 16:08
23 opening? 16:08

24 MS. BHATTACHARYYA: Objection. 16:08
25 Mischaracterizes prior testimony. Asked and 16:08

1 answered. Mischaracterizes Dr. Pokharna's report 16:08
2 and outside the scope of Dr. Tuckerman's report. 16:08
3 THE WITNESS: Do I say it's not an elongated 16:08
4 opening anywhere in my report? 16:08
5 BY MR. KNIGHT: 16:08
6 Q. You do not. 16:08
7 A. Okay. 16:08
8 Q. So are you saying it is an elongated inlet 16:08
9 opening? 16:08
10 MS. BHATTACHARYYA: Objection. 16:08
11 Mischaracterizes prior testimony. The document 16:08
12 speaks for itself. And by "document," I mean 16:08
13 Dr. Tuckerman's noninfringement report. 16:08
14 THE WITNESS: Well, you know, I don't see 16:09
15 that I need to take positions on things that are 16:09
16 not, you know, required to make the case. It 16:09
17 just -- 16:09
18 BY MR. KNIGHT:
19 Q. I mean -- 16:09
20 MS. BHATTACHARYYA: I think we lost Dustin. 16:09
21 MR. KNIGHT: Sorry about that. I'm having 16:09
22 technical difficulties. 16:09
23 BY MR. KNIGHT: 16:09
24 Q. Dr. Tuckerman, I know you haven't served as 16:10
25 an expert before, but you are an expert, and I am 16:10

1 asking your opinion. And so are you able to answer 16:10
2 my question? 16:10
3 MS. BHATTACHARYYA: Objection. Asked and 16:10
4 answered. Outside the scope of Dr. Tuckerman's 16:10
5 report. 16:10
6 THE WITNESS: Repeat the question again, 16:10
7 please. 16:10
8 BY MR. KNIGHT: 16:10
9 Q. Sure. Give me one moment. So just to give 16:10
10 context, so I originally asked you the question, 16:10
11 "Why is a two-dimensional rectangle beneath inlet 16:10
12 manifold 82 in Hamilton an elongated opening, but 16:10
13 the two-dimensional rectangle beneath what 16:10
14 Dr. Pokharna labels as an "inlet header" is not an 16:10
15 elongated in let opening?" 16:10
16 And your response to me was, "Do I say it's 16:10
17 not an elongated opening anywhere in my report?" 16:10
18 I respond to you, "You do not." 16:11
19 And then my question to you after that was, 16:11
20 "So are you saying it is an elongated inlet 16:11
21 opening?" 16:11
22 MS. BHATTACHARYYA: Objection. 16:11
23 Mischaracterizes prior testimony. Asked and 16:11
24 answered. Mischaracterizes Dr. Pokharna's report. 16:11
25 Outside the scope of Dr. Tuckerman's report. 16:11

1 THE WITNESS: I would have to think about it 16:11
2 in the cont - -- you know, if we're talking in the 16:11
3 context of CoolIT's claims. It just -- I didn't 16:11
4 need that argument to -- I mean, I think a 16:11
5 noninfringement argument -- that question as to 16:11
6 whether -- I don't see -- I don't see that it comes 16:11
7 up. I mean... 16:12

8 BY MR. KNIGHT:

9 Q. Well, Dr. Tuckerman, we are entitled to 16:12
10 explore inconsistencies between your noninfringement 16:12
11 and your invalidity position. So just to be clear, 16:12
12 are you refusing to answer my question? 16:12

13 A. No, I'm not. I'm not -- 16:12

14 MS. BHATTACHARYYA: Mr. Knight, he's not. 16:12
15 You know he's not. You know his noninfringement 16:12
16 report is a rebuttal to the infringement report, 16:12
17 right? So maybe you should just -- 16:12

18 MR. KNIGHT: Arpita, are you testifying? Is 16:12
19 there an objection here? Because if there is not, I 16:12
20 would ask you to stop. 16:12

21 MS. BHATTACHARYYA: You are accusing him of 16:12
22 not answering questions. He is. 16:12

23 MR. KNIGHT: I'm asking if he can answer my
24 question.

25 MS. BHATTACHARYYA: If you ask the 16:12

1 question -- I just ask -- 16:12

2 MR. KNIGHT: Arpita, please stop. 16:12

3 BY MR. KNIGHT: 16:12

4 Q. Dr. Tuckerman, are you able to answer my 16:12

5 question? 16:12

6 MS. BHATTACHARYYA: Rephrase your question 16:12

7 or move on. 16:12

8 BY MR. KNIGHT: 16:12

9 Q. Are you refusing to answer my question, 16:12

10 Dr. Tuckerman? 16:12

11 A. I'm not refusing to answer the question. I 16:12

12 would say that one could potentially take that 16:13

13 position. If you were going to take that position, 16:13

14 which was not taken in Dr. Pokharna's report, I 16:13

15 would reserve the right to challenge the reasoning, 16:13

16 if -- if necessary. 16:13

17 I just don't have the, shall we say, the 16:13

18 cognitive ability to work through all the issues of 16:13

19 taking that position because it is not the position 16:13

20 that Dr. Pokharna took. So I won't rule out that 16:13

21 you could take a position like that. And if you'd 16:13

22 like to take a position like that, then we can, you 16:13

23 know, do a follow-up filing or something, I guess is 16:13

24 the way I'd answer the question. 16:14

25 MR. KNIGHT: Okay. I think it's a good time 16:14

1 Q. Okay. So in claims 1, 12 and 14, do those 16:35
2 claims expressly recite that the claimed plate 16:35
3 has compliant surfaces? 16:35
4 A. Let me -- 16:35
5 DEPOSITION REPORTER: Excuse me. Mr. 16:35
6 Knight, can I have that question again?
7 "So in claims 1, 12 and 14..." 16:35
8 BY MR. KNIGHT: 16:35
9 Q. Yeah. Do claims 1, 12 and 14 of the '330 16:35
10 patent expressly recite that the claim plate has 16:35
11 compliant surfaces? 16:35
12 A. Well, I mean, I just did a search on the PDF 16:35
13 for the word "compliant" and found it nowhere in the 16:36
14 patent, so I would say no. 16:36
15 Q. Okay. And do claims 1, 12 and 14 of the 16:36
16 '330 patent expressly recite the material of the 16:36
17 claimed plate? 16:36
18 A. No. It's -- they're silent on the issue of 16:36
19 material. 16:36
20 Q. Okay. Dr. Tuckerman, in preparation for 16:36
21 your noninfringement report, did you review the 16:37
22 PTAB's final written decision in the IPR of the '266 16:37
23 patent? 16:37
24 A. You know, I reviewed it a long time ago. 16:37
25 Q. Okay. 16:37

1 A. Yeah.

2 Q. But you did review it; is that correct? 16:37

3 A. Well, let me -- let me make sure we are 16:37

4 talking about the right thing. Can I see my -- let 16:37

5 me look at the Materials Considered list. 16:37

6 Q. It should be there. And just for your 16:37

7 reference, the IPR of the '266 patent is 16:37

8 IPR2020-00825. 16:37

9 A. My Materials Considered exhibit is which 16:38

10 one, if you can help me out? 16:38

11 Q. Yeah. Let me pull up the list. It should 16:38

12 be Exhibit 276. 16:38

13 A. Yes. Okay. All right. And the document 16:38

14 you're referring to is? 16:38

15 Q. It's the final written decision in 16:38

16 IPR2020-00825. 16:38

17 A. Yes. That is in Materials Considered. 16:38

18 Q. Okay. Now, Dr. Tuckerman, is it your 16:38

19 understanding from the PTAB decision that they 16:38

20 construed the term "plate" and decided there was no 16:38

21 support and specification for a plate made of 16:38

22 compliant material? 16:38

23 MS. BHATTACHARYYA: Objection. Calls for a 16:39

24 legal conclusion. 16:39

25 THE WITNESS: Just one moment, please. 16:39

1 BY MR. KNIGHT:

2 Q. Uh-huh.

3 A. So I think, you know, in paragraph 52 of my 16:41
4 noninfringement report -- 16:41

5 Q. Uh-huh. 16:41

6 A. -- I state: 16:41

7 "In fact, in the IPR filed by Asetek 16:41
8 against CoolIT's '266 patent..." 16:41

9 By the way, is that the patent you had me 16:41
10 pull up, or did you have me pull up a different one? 16:41

11 Q. I had you pull up the '330 patent, but the 16:41
12 '266 patent and the '330 patent both refer to a 16:41
13 plate. 16:41

14 A. Right. Okay. So in... But in regard to 16:41
15 the '266 patent: 16:41

16 "The PTAB agreed with Asetek that the 16:41
17 2007 provisional does not contain a 16:41
18 disclosure that would have conveyed 16:41
19 to a person of ordinary skill in the 16:41
20 art that the inventor had possession 16:41
21 of a manifold body defining a pair 16:41
22 of compliant surfaces (PTAB 16:42
23 IPR2020-00825 final written decision 16:42
24 at 23)." [As read.] 16:42
25 So that is the document you're referring to? 16:42

1 Q. Uh-huh.

2 A. "PTAB also found that the inventor 16:42
3 substitution of the phrase 'rigid 16:42
4 plate' for the phrase 'plate 240' 16:42
5 in the '266 patent is objective 16:42
6 intrinsic evidence that, as of 2012, 16:42
7 the inventor considered plate 240, 16:42
8 which he was contrasting with 16:42
9 compliant insert 334, to be made of 16:42
10 a rigid rather than compliant 16:42
11 material. As the PTAB found the term 16:42
12 'plate' in the '330 patent claims, as 16:42
13 well as the '284 patent claims in 16:42
14 claims 13 and 15 of the '266 patent" -- 16:42
15 [As read.]

16 Remind me again, was that the one we were 16:43
17 looking at or -- 16:43

18 Q. We were looking at the '330 patent, but 16:43
19 again, both the '330 patent and the '266 patent 16:43
20 include the term "plate." 16:43

21 A. Right. Okay. 16:43
22 "The '330 patent claim cannot be 16:43
23 construed to include both a rigid 16:43
24 plate as well as a compliant gasket 16:43
25 manifold because there is no written 16:43

1 description support for a compliant 16:43
2 manifold body in the 2007 provisional 16:43
3 or the '330 patent." [As read.] 16:43
4 Does that answer the question or... 16:43
5 Q. I understand that you recited for me what is 16:43
6 in your report, but I don't think it answers my 16:43
7 question. So I will ask my question again. 16:43
8 Is it your understanding that -- from the 16:43
9 PTAB decision, that they construed the term "plate" 16:43
10 and then they decided there was no support in the 16:43
11 specification for a plate made of compliant 16:43
12 material? 16:43
13 MS. BHATTACHARYYA: Objection. Asked and 16:43
14 answered. 16:43
15 THE WITNESS: I have -- I mean, I quoted you 16:44
16 verbatim from the report. It -- 16:44
17 BY MR. KNIGHT:
18 Q. I understand that, Dr. Tuckerman, and 16:44
19 then you -- 16:44
20 A. I don't -- I will put it this way. I don't 16:44
21 see support for a compliant plate, you know, in -- I 16:44
22 mean, I guess I'm not sure where -- how to answer 16:44
23 it. I thought it kind of -- the excerpts here, I 16:44
24 thought, speak for themselves. Or is -- is there a 16:44
25 different -- does your question mean something 16:45

1 different than what I just said, and if so, what do 16:45
2 you see -- 16:45
3 Q. Yeah. So I'm not asking you to read your 16:45
4 report. I'm actually asking you a question about 16:45
5 whether your understanding is that the PTAB in the 16:45
6 final written description construed the term 16:45
7 "plate." 16:45
8 MS. BHATTACHARYYA: Objection. Vague. 16:45
9 Asked and answered. Calls for a legal conclusion. 16:45
10 THE WITNESS: I would have to re-read that 16:45
11 report in detail to see if they construed the term 16:45
12 "plate." Do you want me to take a look through the 16:45
13 report or -- 16:45
14 BY MR. KNIGHT:
15 Q. I don't. 16:45
16 A. Okay. 16:45
17 Q. Now, but just to be clear, Dr. Tuckerman, 16:45
18 you considered the final written decision when 16:45
19 preparing the noninfringement report; is that 16:45
20 correct? 16:45
21 A. Yes, as indicated by excerpts from it. 16:45
22 Q. Okay. And did you read the final written 16:46
23 decision in IPR2020-00825 from beginning to end in 16:46
24 preparation for your noninfringement report? 16:46
25 A. I have read -- object -- sorry. You have an 16:46

1 objection, Arpita? 16:46

2 MS. BHATTACHARYYA: No. Just go ahead and 16:46

3 answer. 16:46

4 THE WITNESS: Okay. I have read thousands 16:46

5 of pages of material that were given to me, and that 16:46

6 report was included in it. So at one time, it was 16:46

7 read through, you know, in the limited time there 16:46

8 was to prepare this rebuttal, the -- I can't say for 16:46

9 sure that I read the whole report through again. 16:46

10 I think that having a -- you know, having 16:47

11 material -- you know, I mean, if I give a textbook, 16:47

12 say, as Materials Considered that doesn't mean 16:47

13 everything in the textbook is relevant. So what's 16:47

14 excerpted here are, in my view, relevant passages. 16:47

15 BY MR. KNIGHT: 16:47

16 Q. So sitting here today, you can't tell me 16:47

17 whether the PTAB final written decision provides a 16:47

18 construction for the term "plate" or not, can you? 16:47

19 MS. BHATTACHARYYA: Objection. Same 16:47

20 objections. Asked and answered multiple times now. 16:47

21 THE WITNESS: Without an opportunity to 16:47

22 refresh my memory by reading the report in its 16:47

23 entirety, I cannot answer that affirmatively. 16:47

24 BY MR. KNIGHT: 16:47

25 Q. Okay. Okay. All right. In your invalidity 16:47

1 report, you map the claimed plate to several prior 16:48
2 art references; is that correct? 16:48
3 A. Yeah, I -- 16:48
4 Q. Okay. Great. It is just to confirm. It is 16:48
5 not a trick question. I'm just laying a foundation. 16:48
6 A. That wasn't a fair -- 16:48
7 MR. KNIGHT: Yeah. Okay. 16:48
8 I would like to introduce into the record 16:48
9 what I will designate as Exhibit 0281. 16:48
10 (Exhibit 281 marked for identification.) 16:48
11 BY MR. KNIGHT: 16:48
12 Q. Exhibit 0281 is United States Patent 16:48
13 Application Publication 2006/0096738 to Kang. 16:48
14 MS. BHATTACHARYYA: I'm not seeing the 16:49
15 exhibit yet. 16:49
16 MR. KNIGHT: Okay. I just introduced the 16:49
17 exhibit. Can you let me know if you see it? 16:49
18 THE WITNESS: What is the number of the 16:49
19 exhibit? 16:49
20 MR. KNIGHT: It should be exhibit 0281. 16:49
21 THE WITNESS: Okay. I got it. 16:49
22 BY MR. KNIGHT: 16:49
23 Q. Great. If you can open that up for me. 16:49
24 A. It's open. 16:49
25 Q. Great. Okay. Can you go to Figure 2 in 16:49

1 outlet region and the second outlet region through 17:49
2 that white connected region below, both outlet 17:49
3 regions? 17:49
4 A. No. It's certainly not supposed to, no. 17:49
5 Q. So it can't is what you're saying? 17:49
6 A. No. 17:50
7 Q. Okay. 17:50
8 A. No. 17:50
9 Q. Okay. 17:50
10 A. I mean, there's a -- this basically -- this 17:50
11 central thing makes -- makes a seal between the two. 17:50
12 Q. So -- okay.
13 A. You can't -- you can't go connect between. 17:50
14 Q. So you're saying that the seal isolates one 17:50
15 of the outlet passages from the other? 17:50
16 A. Yeah. I mean, until you -- they do -- I 17:50
17 mean, obviously, the flows have to -- they're coming 17:50
18 together in this -- in this upper volume. There's 17:50
19 some open space between this assembly and here 17:50
20 (indicating), and they would converge at this hole 17:50
21 here. So that's where the flows would -- would 17:51
22 recombine and they're actually, you know, going -- 17:51
23 going into the pump in this case. 17:51
24 Q. Uh-huh. And is that -- that point where 17:51
25 they recombine, is that before the outlet of the 17:51

1 housing? 17:51

2 A. I'm sorry, I didn't hear the question. 17:51

3 Q. The point that you -- the area that you 17:51

4 pointed to where the flows recombine, is that before 17:51

5 the outlet of the housing, or is it after? 17:51

6 MS. BHATTACHARYYA: Objection. 17:51

7 Mischaracterizes -- objection. Mischaracterizes 17:51

8 prior testimony. Mischaracterizes Dr. Tuckerman's 17:51

9 noninfringement report. 17:51

10 THE WITNESS: Well, so in Dr. Pokharna's 17:52

11 claim construction, it says in my report: 17:52

12 "He does not indicate the outlet port 17:52

13 and/or the passageway leading out of 17:52

14 the fluid heat exchanger housing (to 17:52

15 the pump or radiator), as part of the 17:52

16 outlet passage" --

17 (Clarification requested by Reporter.)

18 THE WITNESS: Oh, "to the" -- where did I

19 stop?

20 "... (to the pump or radiator), as 17:52

21 part of the outlet passage. 17:53

22 Therefore, under Dr. Pokharna's own 17:53

23 mappings, Asetek's Gen 4, 5, 6 and 7 17:53

24 products do not meet the limitation, 17:53

25 the two subflows recombine in the outlet 17:53

1 passage." [As read.] 17:53

2 So in his mapping, which -- you know, which 17:53

3 is what I'm using. 17:53

4 BY MR. KNIGHT: 17:53

5 Q. I understand that you have recited to me 17:53

6 what you believe his mapping to be. But I'm asking 17:53

7 in your opinion. So I will repeat my question just 17:53

8 to get your opinion on this. 17:53

9 Give me a moment. So the area that you 17:53

10 pointed to where the flows recombine, is that before 17:53

11 the outlet of the housing, or is it after? 17:53

12 MS. BHATTACHARYYA: Objection. 17:53

13 Mischaracterizes prior testimony and Dr. Tuckerman's 17:53

14 noninfringement report. 17:53

15 THE WITNESS: Let's go to the claim chart. 17:53

16 BY MR. KNIGHT: 17:54

17 Q. Dr. Tuckerman, are you unable to answer that 17:54

18 question without referencing your report? 17:54

19 A. I'm kind of tired and so I, you know, want 17:54

20 to make sure I just am, you know, not just spewing 17:54

21 random words out of tiredness. And I think it's 17:54

22 appropriate, given that I am responding to Pokharna, 17:54

23 to put up the claim chart. So you could save time 17:54

24 if you could identify the relevant claim chart. 17:54

25 Q. What claim chart are you referring to, 17:54

1 Dr. Tuckerman? 17:54

2 A. Not claim chart. Noninfringement exhibit is 17:54

3 what I meant. Well -- 17:55

4 Q. I'm not following, Dr. Tuckerman. 17:55

5 A. Hang on just a moment. 17:55

6 Q. Uh-huh.

7 A. Wait a minute. I'm at Pokharna's charting, 17:55

8 but I mean, I don't -- I guess I don't really need 17:55

9 that. 17:55

10 Q. Yeah. You have the device in front of you; 17:55

11 correct? 17:55

12 A. I do have the device in front of me. 17:55

13 Q. And you pointed out where the two flows can 17:55

14 recombine; is that correct? 17:55

15 A. Yes, at this hole (indicating). 17:55

16 Q. Right. And my question is just: Do those 17:55

17 two flows recombine before the housing outlet or 17:55

18 after the housing outlet? 17:56

19 MS. BHATTACHARYYA: Objection. 17:56

20 Mischaracterizes prior testimony. Mischaracterizes 17:56

21 the CoolIT's patent claims. Mischaracterizes 17:56

22 Dr. Pokharna's infringement report. 17:56

23 THE WITNESS: Yeah. I mean, I think I need 17:56

24 Dr. Pokharna's infringement report so I can -- I 17:56

25 want to make sure I'm being consistent with his 17:56

1 tests to form your opinion with respect to the 18:18
2 outlet flow passage? 18:18
3 MS. BHATTACHARYYA: Objection. Compound. 18:18
4 BY MR. KNIGHT: 18:19
5 Q. Let me rephrase. With respect to the Gen 5 18:19
6 product, did you perform any tests to form your 18:19
7 opinion regarding the outlet flow passage? 18:19
8 A. I didn't -- 18:19
9 MS. BHATTACHARYYA: Objection. Outside the 18:19
10 scope of the report. 18:19
11 BY MR. KNIGHT: 18:19
12 Q. Okay. With respect to the Gen 6 accused 18:19
13 product, did you perform any tests to form your 18:19
14 opinion regarding the outlet flow passage? 18:19
15 A. I did not. 18:19
16 MS. BHATTACHARYYA: Same objection. 18:19
17 BY MR. KNIGHT: 18:19
18 Q. And with respect to Gen 7 accused device, 18:19
19 did you perform any tests to form your opinion with 18:19
20 respect to the outlet flow passage? 18:19
21 MS. BHATTACHARYYA: Same objection. 18:19
22 THE WITNESS: I did not feel it was 18:19
23 necessary to render this opinion. 18:19
24 BY MR. KNIGHT: 18:19
25 Q. Okay. Now, for the Gen 5 through 7 18:19

1 products, do the flows recombine before the fluid 18:19
2 exits the outlet port? 18:20
3 MS. BHATTACHARYYA: Objection. Compound. 18:20
4 THE WITNESS: They recombine at the outlet 18:20
5 port. 18:20
6 MR. KNIGHT: Okay. One moment. 18:20
7 BY MR. KNIGHT: 18:20
8 Q. Is it fair to say that they recombine at a 18:20
9 two-dimensional surface before the outlet port? 18:20
10 MS. BHATTACHARYYA: Objection. 18:20
11 Mischaracterizes Dr. Pokharna's report and 18:20
12 Dr. Tuckerman's report. 18:20
13 THE WITNESS: I have a real problem with the 18:21
14 meaning of that question. It's not a precise 18:21
15 question in technical terminology so I -- 18:21
16 BY MR. KNIGHT: 18:21
17 Q. What don't you understand about that 18:21
18 question? 18:21
19 A. Repeat the question again. 18:21
20 Q. Sure. My question originally was: Is it 18:21
21 fair to say that the two subflows recombine at a 18:21
22 two-dimensional surface before the outlet port? 18:21
23 MS. BHATTACHARYYA: Objection. 18:21
24 Mischaracterizes Dr. Pokharna's report and 18:21
25 Dr. Tuckerman's noninfringement report. 18:21

1 THE WITNESS: Well, that's not something I 18:21
2 took a position on, nor did Pokharna, and it is -- 18:22
3 I'm not even sure a meaningful question in the 18:22
4 context of fluid mechanics. You -- 18:22
5 BY MR. KNIGHT:
6 Q. I am asking you the question now though, 18:22
7 Dr. Tuckerman. 18:22
8 A. The what? 18:22
9 Q. I'm asking you the question now though, 18:22
10 Dr. Tuckerman. 18:22
11 A. Yeah. And I'm saying, technically, I 18:22
12 consider that not a question that makes sense. 18:22
13 Q. Right. And I have asked you what about that 18:22
14 question doesn't make sense? 18:22
15 MS. BHATTACHARYYA: Dustin, do you want to 18:22
16 repeat the question? 18:22
17 MR. KNIGHT: Yeah. I can do that. 18:22
18 BY MR. KNIGHT: 18:22
19 Q. So my question was originally, was it -- is 18:22
20 it fair to say that the two subflows recombine at a 18:22
21 point that is represented by a two-dimensional 18:22
22 surface before the outlet port? 18:23
23 MS. BHATTACHARYYA: Objection. 18:23
24 Mischaracterizes Dr. Pokharna's report and 18:23
25 Dr. Tuckerman's noninfringement report. 18:23

1 BY MR. KNIGHT: 18:23

2 Q. I can rephrase it for you a little bit. 18:23

3 For the Gen 5 through 7 products, do the two 18:23

4 subflows recombine at a point before they enter the 18:23

5 hole of the outlet port? 18:23

6 MS. BHATTACHARYYA: Objection. Compound. 18:23

7 Objection. Mischaracterizes Dr. Pokharna's report 18:23

8 and Dr. Tuckerman's noninfringement report. 18:23

9 THE WITNESS: Let me... Just a moment. 18:23

10 MS. BHATTACHARYYA: Soseh, while 18:24

11 Dr. Tuckerman is looking through his report, can you 18:24

12 give me a read on the time? 18:24

13 THE VIDEOGRAPHER: Yeah. Just one second. 18:24

14 So we had 42 minutes left and we have been 18:24

15 on the record for 41 minutes. 18:24

16 MS. BHATTACHARYYA: Thank you, Soseh. 18:25

17 THE WITNESS: Okay. Well, I'm going to 18:26

18 quote from a section from the report. 18:26

19 "In each generation of Asetek product, 18:26

20 the gaskets/'seal' separates the flow" -- 18:26

21 this is paragraph 65 of my rebuttal -- 18:26

22 "...the gaskets/'seal' separates the 18:26

23 flow paths of cooling liquid from the 18:26

24 first and second 'outlet regions' to 18:26

25 the outlet port, such so there is no 18:26

1 recombination/mixing of the cooling 18:26
2 liquid received by the first and
3 second outlet regions. In particular, 18:26
4 Asetek's Generation 5 and 7 products, 18:26
5 cooling liquid received by the 'second 18:26
6 outlet region' flows directly to the 18:26
7 outlet port, and cooling liquid
8 received by the 'first outlet region'
9 takes a separate, longer path to the
10 outlet port." 18:27
11 That was the picture I showed where it went 18:27
12 like that (indicating). 18:27
13 "Therefore, the two sub flows do not 18:27
14 recombine, nor is there a single 18:27
15 outlet passage (per Dr. Pokharna's 18:27
16 mapping), in which the two sub flows 18:27
17 recombine before reaching the outlet 18:27
18 port." 18:27
19 BY MR. KNIGHT: 18:27
20 Q. Dr. Tuckerman, my question didn't ask you to 18:27
21 read back your report to me. I would ask you -- I 18:27
22 would ask you to answer my question. Do the two 18:27
23 flows recombine at a point before they enter the 18:27
24 hole of the outlet for the Gen 5 through 7 products? 18:27
25 MS. BHATTACHARYYA: Dr. Tuckerman, I'm 18:27

1 instructing you not to answer any more questions. 18:27
2 Counsel had seven hours of deposition time with you 18:27
3 on the record and seven hours is up, so this 18:27
4 deposition, Counsel, cross-examination is over. 18:27
5 MR. KNIGHT: Just for the record, I am 18:27
6 keeping Dr. Tuckerman's deposition open because I 18:27
7 was not able to finish my questioning due to the 18:28
8 amount of time Dr. Tuckerman took in answering many 18:28
9 of my questions and his general lack of preparedness 18:28
10 for this deposition, as well as the numerous 18:28
11 speaking objections and interruptions by Asetek's
12 counsel throughout the day. I reserve my right to 18:28
13 move to compel for additional time to complete 18:28
14 Dr. Tuckerman's deposition. 18:28
15 MS. BHATTACHARYYA: I disagree. 18:28
16 Dr. Tuckerman answered all your questions 18:28
17 completely, truthfully and to the best of his 18:28
18 ability. You did not use your seven hours of 18:28
19 deposition time appropriately. You wasted a lot of 18:28
20 time asking improper and irrelevant questions and 18:28
21 asking incomplete and improper hypotheticals. 18:28
22 Dr. Tuckerman tried -- did his best to answer to the 18:28
23 best of his ability. Your seven hours is up. You 18:28
24 should have used your time better. 18:28
25 MR. KNIGHT: I respectfully disagree. 18:28

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5 I, David B. Tuckerman, do hereby declare under
6 penalty of perjury that I have read the foregoing
7 transcript; that I have made corrections as appear
8 noted, in ink, initialed by me, or attached hereto; that
9 my testimony as contained herein, as corrected, is true
10 and correct.

11 EXECUTED this ____ day of _____,
12 2022, at _____, _____.
13 (City) (State)

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17 _____
David B. Tuckerman
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1 I, JANIS JENNINGS, CSR No. 3942, Certified
2 Shorthand Reporter, certify:

3 That the foregoing proceedings were taken
4 before me at the time and place therein set forth, at
5 which time the witness was duly sworn by me;

6 That the testimony of the witness, the
7 questions propounded, and all objections and statements
8 made at the time of the examination were recorded
9 stenographically by me and were thereafter transcribed;

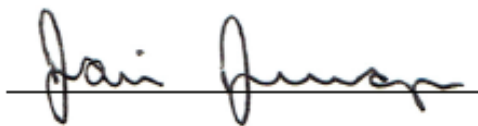
10 That the foregoing pages contain a full, true
11 and accurate record of all proceedings and testimony.

12 Pursuant to F.R.C.P. 30(e)(2) before
13 completion of the proceedings, review of the transcript
14 [X] was [] was not requested.

15 I further certify that I am not a relative or
16 employee of any attorney of the parties, nor financially
17 interested in the action.

18 I declare under penalty of perjury under the
19 laws of California that the foregoing is true and
20 correct.

21 Dated this 3rd day of January 2022.

22
23 

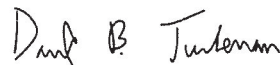
24 JANIS JENNINGS, CSR NO. 3942

25 CLR, CCRR

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

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5 I, David B. Tuckerman, do hereby declare under
6 penalty of perjury that I have read the foregoing
7 transcript; that I have made corrections as appear
8 noted, in ink, initialed by me, or attached hereto; that
9 my testimony as contained herein, as corrected, is true
10 and correct.

11 EXECUTED this 1st day of February,
12 2022, at Lake Stevens, Washington.
13 (City) (State)
14
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16



17 David B. Tuckerman
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HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

RE: ASETEK DANMARK A/S VS. COOLIT SYSTEMS, INC.

DAVID TUCKERMAN, PH.D., JOB NO. 4997336

E R R A T A S H E E T

PAGE 35 LINES 5-6 CHANGE "each cold plate is to microchannel arrays" to "each cold plate has two microchannel arrays."

REASON Transcription error

PAGE 232 LINE 4 CHANGE "Asetek's" to "in Asetek's"

REASON Transcription error

PAGE _____ LINE _____ CHANGE _____

REASON _____

PAGE _____ LINE _____ CHANGE _____

REASON _____

PAGE _____ LINE _____ CHANGE _____

REASON _____

PAGE _____ LINE _____ CHANGE _____

REASON _____

David B. Tuckerman

1 February 2022

WITNESS

Date